

**THE CAUSES AND PROCESSES OF RURAL-URBAN MIGRATION IN 19TH
AND EARLY 20TH CENTURY INDIA:
THE CASE OF RATNAGIRI DISTRICT**

by

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**A thesis submitted to the University of Salford
for the degree of Doctor of Philosophy**

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July 1991

TO MY CHILDREN, MARIAM AND SAMAN

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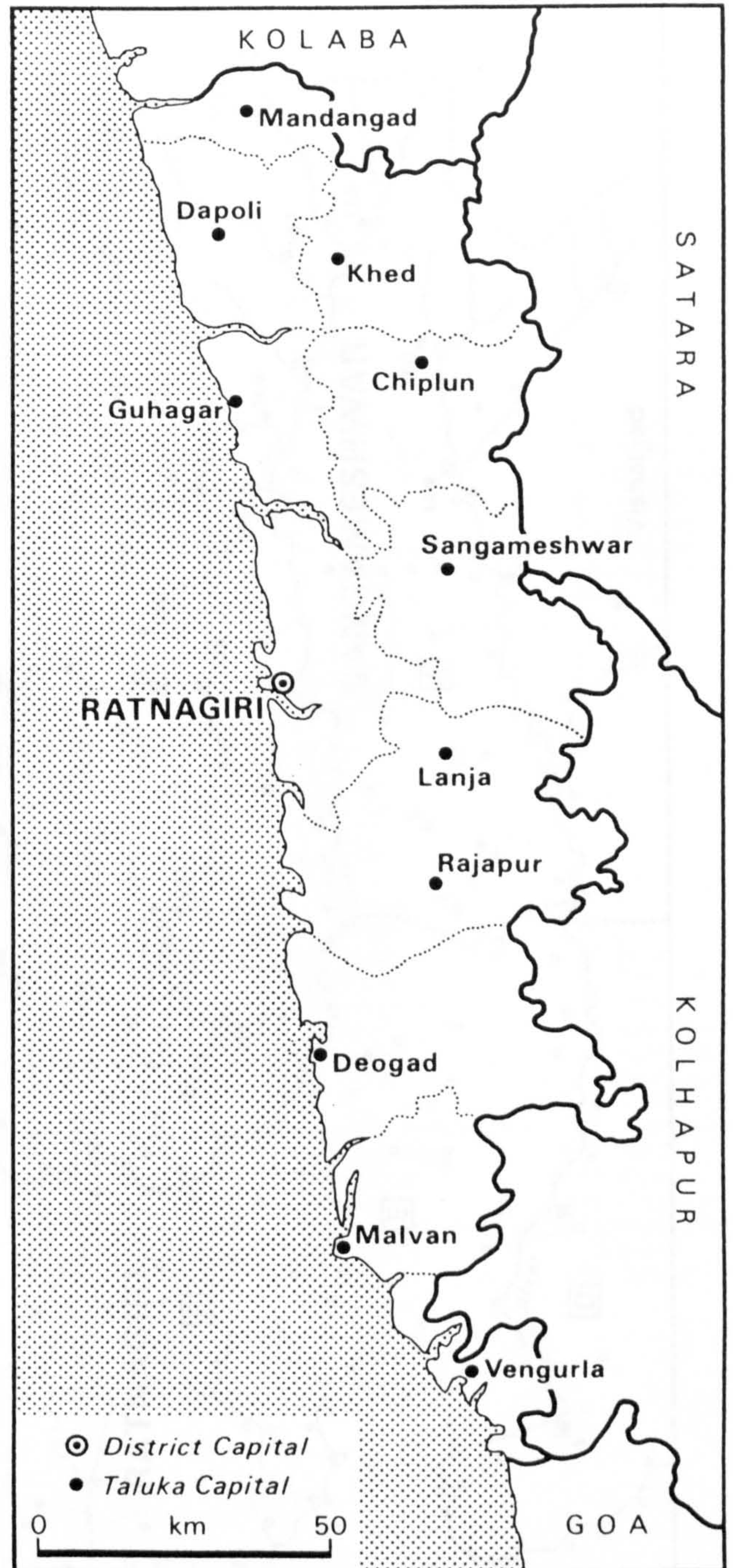
ACKNOWLEDGEMENTS

I would like to thank the many people who have helped me during the course of my research. In particular, in India, I would like to thank the staff of the Pune Archives, and also Shri S. B. Thete and Shri Onkar, for help with Marathi documents in Pune; the staff of the Maharashtra State Archives in Bombay, the Record Office in Ratnagiri and the Tahashil Office in Deorukh, particularly Shri S. V. Chavan. For their general help and assistance, I would also like to thank Professor A. R. Kulkarni and Dr. S. Varma in Pune, and Shri M. Shrikhande and family in Ratnagiri. In Britain, I would like to thank the staff of the India Office Library and Records, and in particular Mr. A. S. Cook for help with maps; in the School of Oriental and African Studies, Dr. I. Raeside who taught me Marathi, and also Professor K. N. Chaudhuri and Professor K. Ballhatchett; in Salford University, Mr. G. Dobrzynski for drawing the maps and Mr. R. Ward for the regressions and graphs. Above all, however, I would like to express my gratitude to my supervisor, Dr. Colin Simmons, for his great patience and his constructive criticism. I am in no doubt that without his continual support and encouragement this thesis would never have been completed.

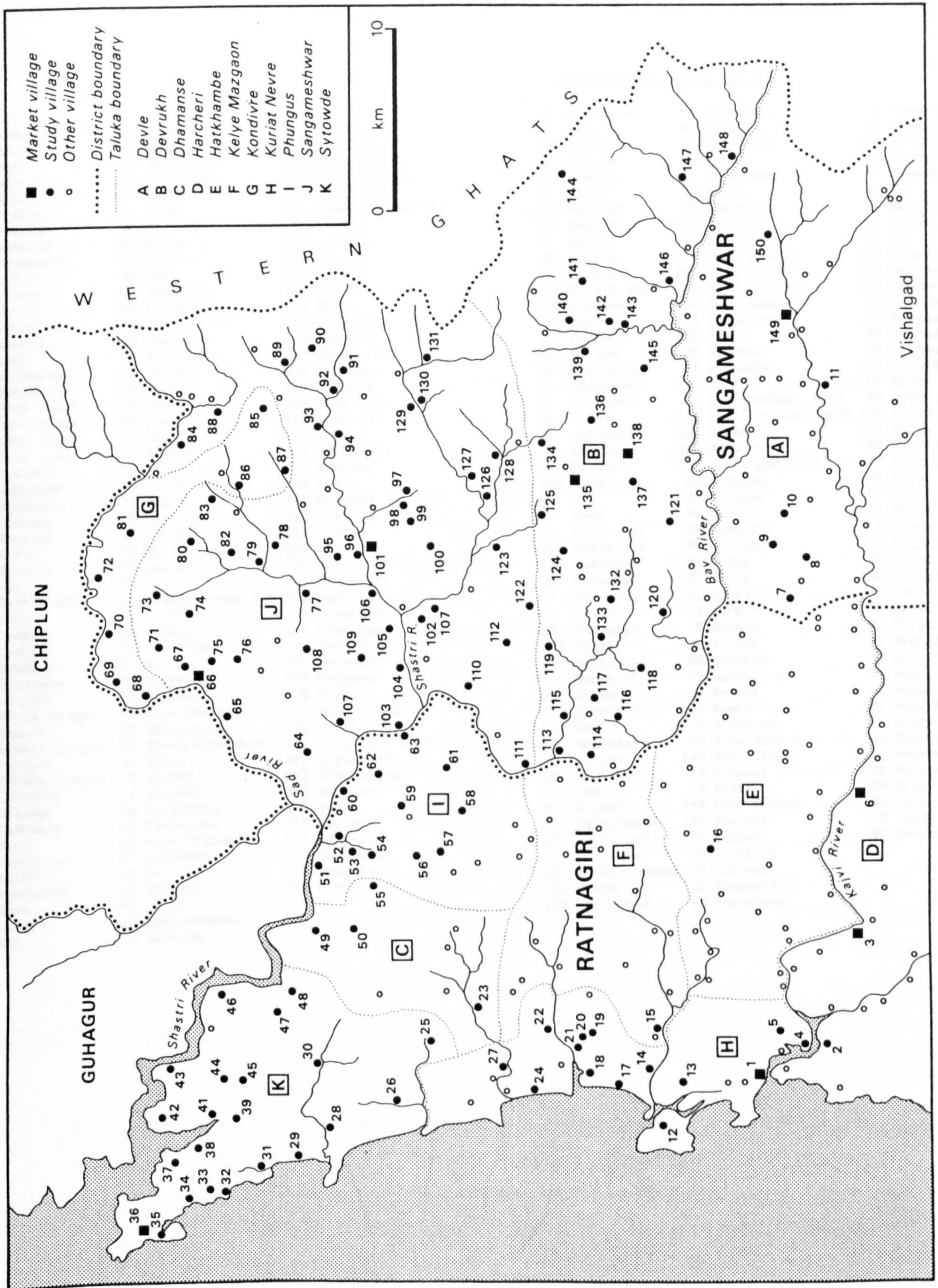
ABSTRACT

The aim of this thesis is to investigate the reasons for the growth of large scale labour migration from Ratnagiri district during the nineteenth century. It is argued firstly that for an understanding of the origins of migration from Ratnagiri it is necessary to investigate the socio-economic structure of the district, since exogenous demand for labour cannot explain many aspects of the pattern of migration from Ratnagiri, nor can it explain the high rate of migration compared to other areas with similar access to labour markets. It is argued that regional and gender patterns of migration from Ratnagiri can be partly explained by the structure of demand for labour within the district; but that the scale of migration can most convincingly be explained in terms of the acute poverty of sections of the rural population. It is argued that this poverty cannot be ascribed to demographic pressure in the early nineteenth century, since population in the district did not rise rapidly until migration was already underway. It is instead suggested that the poverty of many cultivators in the earlier nineteenth century was an outcome of the spread of a village *zamindari* system in Ratnagiri during the late eighteenth century, the impact of which was intensified by legal changes introduced under British rule; the consequent concentration of landholding in the hands of the village *zamindars* led to higher exactions on the lower caste cultivators, which stimulated emigration in the mid nineteenth century. Furthermore, it is suggested that the land tenure system was at the root of the problems of agricultural development which the district faced later in the nineteenth century. When population rose in the mid nineteenth century, the extension of cultivation put pressure on the fragile ecology of the district, which led to rapid deforestation and falling yields per acre. It is argued that though cultivation intensified in Ratnagiri during the later nineteenth and early twentieth centuries, the output per head nonetheless probably fell, and the system of land tenure discouraged the adoption of many strategies which might have raised output per head, thus perpetuating the poverty which, it is argued, lay at the root of out-migration from Ratnagiri.

Map 1: Ratnagiri district



Map 2: Part of Ratnagiri and Sangameshwar talukas



KEY TO MAP 2ALPHABETICAL KEY TO MAP 2

1 Ratnagiri Town	52 Madhe	103 Dingni	48 Agarnaral	8 Karanjari	2 Phansop
2 Phansop	53 Bondye	104 Bhirkond	57 Agwe	64 Karjuve	63 Phungus
3 Tond	54 Harshinge	105 Kond Asurde	119 Ambavli	94 Karbhatle	107 Pirdavne
4 Vada Juve	55 Khalgaon	106 Kond Ambedu	71 Ambawe	38 Kasari	90 Prachitgad Fort
5 Nachne	56 Vilye	107 Pirdavne	73 Ambara	14 Kasarveli	83 Ragaon
6 Harchiri	57 Agwe	108 Kumbharkhani Khd	75 Ambet	15 Kelye	51 Rai
7 Choravne	58 Parchuri	109 Asurde	93 Anaderi	55 Khalgaon	79 Rajwadi
8 Karanjari	59 Upale	110 Kolambe	146 Angavli	110 Kolambe	1 Ratnagiri town
9 Champhavli	60 Majare	111 Vandri	70 Aravli	47 Kolisre	29 Ril
10 Devle	61 Den	112 Ujgaon	109 Asurde	106 Kond Ambedu	135 Sadavli
11 Tivre	62 Davkhol	113 Talye	147 Bammoli	105 Kond Asurde	132 Sagave
12 Mirya	63 Phungus	114 Kante	139 Belari Bdk	88 Kond Bhairav	149 Sakharpe
13 Shirgaon	64 Karjuve	115 Chandivne	104 Bhirkond	134 Kond Ozar	34 Sandkhol
14 Kasarveli	65 Dhamapur	116 Pangari	53 Bondye	69 Kondivne	101 Sangameshwar
15 Kale	66 Makhjan	117 Ghodavli	127 Borasut	125 Kosum	67 Sarand
16 Hatkhambe	67 Sarand	118 Tulasani	68 Burbad	22 Kotavde	42 Satkondi
17 Kalbadevi	68 Burbad	119 Ambavli	115 Chandivne	84 Kuchambe	126 Sonavde
18 Vada Basni	69 Kondivne	120 Nive Bdk.	9 Chaphavli	130 Kule	37 Sonde Lawgan
19 Vada Pirdavne	70 Aravli	121 Vasi (B)	32 Chapheri	81 Kumbharkhani Bdrk	43 Sytowde
20 Vada June	71 Ambawe	122 Nadlaj	50 Chavye	108 Kumbharkhani Khurd	136 Talavde
21 Vada Sade	72 Murduv	123 Karambele	82 Chikhali	140 Kundi	113 Talye
22 Kotavde	73 Ambara	124 Tamhane	7 Choravne	102 Mabhale	87 Tambedi
23 Dhamanase	74 Tural	125 Kosum	62 Davkhol	141 Maimatgad Fort	124 Tamhane
24 Dhokamle	75 Ambet	126 Sonavde	150 Dakhin	66 Makhjan	100 Terye
25 Nivendi	76 Navlang	127 Borasut	61 Den	26 Malgund	91 Tivre (J)
26 Malgund	77 Dhamni	128 Sayale	49 Deud	60 Majare	11 Tivre (A)
27 Nevre	78 Shembavne	129 Vasi (J)	10 Devle (A)	86 Masarang	3 Tond
28 Varavde	79 Rajwadi	130 Kule	131 Devle (J)	76 Navlang	118 Tulasani
29 Ril	80 Kadvai	131 Devle (J)	138 Devrukh	52 Madhe	74 Tural
30 Kalajhondi	81 Kumbharkhani Bdk	132 Sagave	23 Dhamanase	12 Mirya	112 Ujgaon
31 Undi	82 Chikhali	133 Phansale	65 Dhamapur	99 Muchari	31 Undi
32 Chapheri	83 Ragaon	134 Kond Ozar	77 Dhamni	72 Murduv	59 Upale
33 Kachre	84 Kuchambe	135 Sadavli	24 Dhokamle	5 Nachne	56 Vilye
34 Sandkhol	85 Nivli	136 Talavde	103 Dingni	122 Nadlaj	18 Vada Basni
35 Handiwda	86 Masarang	137 Patgaon	46 Gadanaral	35 Handiwda	19 Vada Pirdavne
36 Jaigad	87 Tambedi	138 Devrukh	117 Ghodavli	54 Harshinge	20 Vada June
37 Sonde Lawgan	88 Kond Bhairav	139 Belari Bdk	144 Gothane	92 Navadi	4 Vada Juve
38 Kasari	89 Shringapur	140 Kundi	6 Harchiri	27 Nevre	21 Vada Sade
39 Kamble Lawgan	90 Prachitgad Fort	141 Maimatgad Fort	145 Hativ	142 Nigudwadi	41 Vaidya Lawgan
40 Panheli	91 Tivre	142 Nigudwadi	16 Hatkhambe	120 Nive Budruk	96 Vada Tikanath
41 Vaidya Lawgan	92 Navadi	143 Nive Khurd	36 Jaigad	143 Nive Khurd	111 Vandri
42 Satkondi	93 Anaderi	144 Gothane	44 Jambhari	25 Nivendi	28 Varavde
43 Sytowde	94 Karbhatle	145 Hativ	33 Kachre	85 Nivli	129 Vasi (J)
44 Jambhari	95 Phansavne	146 Angavli	80 Kadvai	148 Ozar Budruk	121 Vasi (B)
45 Vatad	96 Vada Tikanath	147 Bammoli	30 Kalajhondi	116 Pangari	45 Vatad
46 Gadanaral	97 Kalbaste	148 Ozar Bdk	17 Kalbadevi	40 Panheli	98 Vesarad
47 Kolisre	98 Vesarad	149 Sakharpe	97 Kalbaste	58 Parchuri	
48 Agarnaral	99 Muchari	150 Dakhin	39 Kamble Lawgan	137 Patgaon	
49 Deud	100 Terye		114 Kante	133 Phansale	
50 Chavye	101 Sangameshwar		123 Karambele	95 Phansavna	
51 Rai	102 Mabhale				

CHAPTER 1

INTRODUCTION: THE CHARACTER AND STRUCTURE OF MIGRATION FROM RATNAGIRI DISTRICT

I Introduction

Rural-urban migration in nineteenth and early twentieth century India presents an interesting case study for economic historians as an example of migration in the early stages of industrialisation. Many historical studies of European migration have investigated the causes of migration from the different regions of Europe,¹ but research on the origins of labour migration in historical studies of India has tended to concentrate on the processes of recruitment of migrants, or of their role in particular industries.² Those studies which have dealt with the composition of the migrant stream or the causes of migration, have mainly concentrated on the areas of North East India which were the catchment areas for the coal mines and tea plantations,³ and little work has been done on the origins of the factory labour force.⁴ There are of course many studies by development economists on migration in modern India. The problem with studies of migration in the late twentieth century, however, is that the researcher is often investigating the end of a long process or tradition of migration going back to the nineteenth century, and it is therefore difficult to disentangle cause and effect.⁵

There have been some attempts by historians to investigate the origins of labour migration on an all-India basis by isolating the characteristics of the labour catchment areas throughout the sub-continent.⁶ However, there are many difficulties with comparability of data in very broad statistical analyses of this kind. For this reason I have chosen to study one such labour catchment area in depth, looking at social and economic change during and preceding the period when migration developed, in order to understand why migration became

so important to the area, and why it took the form it did. Through an examination of the social and economic history of Ratnagiri district from the late eighteenth to the early twentieth century, it is my intention to investigate the complex interrelationship between social, economic and political change which lay behind the growing labour emigration from Ratnagiri to Bombay city in the nineteenth century.

Approaches to the study of labour migration in the Third World have produced a wide variety of explanations for its development, and have identified migration as playing many widely differing roles in processes of economic and social change. For economists the Lewis approach, and its development by Todaro and others, have provided a model of economic dualism, with rural-urban migration as one of the mechanisms whereby the dichotomy between the low (or zero) marginal productivity of the rural areas and the high marginal productivity of the urban capitalist sector is modified as the flow of labour into the city raises wages in the rural areas, by removing disguised unemployment, at the same time as the return on capital in the urban industries slows down. The refinement of the Todaro model explains, through the Expected Income hypothesis, why rural population apparently behaves illogically by migrating to urban areas with high unemployment, and further sophistication is provided by O. Stark's analysis of migration in terms of the opportunity cost to migrants.⁷ However, all these studies work within the framework of supply and demand for labour in a free market, with migration seen as a link between the developed and underdeveloped sectors of the economy.

On the other hand, the study of the causes and significance of migration in the Third World has attracted much attention from Marxist-orientated social scientists. In particular, the Marxist analysis of labour migration in Southern Africa has pin-pointed the role of circular migration in providing a cheap labour force for capitalist enterprises, by pushing the cost of the reproduction of labour onto the rural peasantry; and has also emphasised the complicity of the colonial and post-colonial state in the development of this system.⁸ In this analysis, rural-urban migration in the Third World is not a process which could stimulate rural development, as in the neo-classical analysis, but one which perpetuates the division

between capitalist and pre-capitalist modes of production, through the exploitation of the short-term migrants and the rural communities from which they come for the profit of the (often foreign) capitalist sector. This model can also be applied to India, allowing for differences in the role of the state, and in the nature of capitalism and of rural society in India.⁹ This model has been challenged, however, by those Indian Marxists who do not accept any 'dualism' in the colonial and neo-colonial economy, and explain the patterns of circular migration so prevalent in India in terms of the circulation of a desperate and dispossessed rural proletariat between the cities, where capitalist development is stifled by neo-colonialism, and the rural areas where the land has been taken from them by capitalist landlords but where debt bondage still ties them to the village.¹⁰

Analyses of the significance and causes of rural-urban migration and of the composition of the migrant stream are therefore fundamentally based on an identification of the nature of the society within which the migration occurs. If a dynamic capitalist sector can be identified in some urban areas in late nineteenth and early twentieth century India, then the demand for skilled and unskilled labour in these cities, and the greater opportunities for social mobility in the 'modern' urban environment, might be expected to attract workers from the countryside even if conditions there were far from intolerable. Such migrants would often be skilled and ambitious, and would be expected to cut their ties with the rural areas rapidly as they committed themselves willingly to urban life. On the other hand, if the capitalist industrial sector in India was weak, and the opportunities in the city less attractive, one might expect that 'push' factors would have played a greater role in rural-urban migration. In this case, the nature of the migrant stream would depend more on the structure of the rural society from which it comes. If rural society was still pre-capitalist, the migrants would still be peasants at heart, driven out reluctantly by the poverty caused by landlord exactions and government taxation, to supplement the meagre output from their holdings by short-term and seasonal labour in the city. If encroaching capitalism was transforming agrarian relations, however, landless agricultural labourers might be expected to form a larger

part of the migrant stream; though deprived of their title to the soil and eager to settle in the city these migrants, like the peasants, might still be forced to return frequently to their rural roots by chronic urban unemployment and by the burden of debt on their families still in their home villages.

In this thesis it is argued that migration from Ratnagiri to Bombay cannot be explained simply by relative demand for labour in the city as compared to the rural areas but must be seen to reflect the acute poverty of a large section of the rural population, which pushed them into emigration. It is argued that in the first half of the nineteenth century this poverty was caused to a significant extent by the village *zamindari* system of land tenure, especially as adapted to fit British ideology during the early years of the nineteenth century; and that this tenurial system was attractive to both British and pre-British administrations because it enabled a higher tax revenue to be raised in agriculturally undeveloped areas. It is also argued that the lack of agricultural development in the district exacerbated the problem of poverty, especially as the population rose in the mid and late nineteenth century; but that this lack of development can also be explained to a considerable extent by the operation of the land tenure system, within the constraints of the agricultural and ecological systems of the district. It is suggested, therefore, that while in colonial Africa deliberate policies of government forced changes in the agrarian system in order to push labour into the cities, in India the impact of government policies was less direct. In the case of Ratnagiri district, the crisis in western India in the late eighteenth and early nineteenth centuries, itself in a large part a product of the impact of British expansion in the area,¹¹ encouraged the spread of a *zamindari* system of land tenure in Ratnagiri. This, combined with the ideology and fiscal demands of British colonial rule, created a new agrarian system under the colonial regime, which combined the rentier elements of the *zamindari* tenure with the legal structure of nineteenth century Britain. Such rural regimes, which can be identified in other parts of India in the early colonial period,¹² were recognised by the British colonial government as an obstacle to economic development, but their political usefulness was such that though they

could be modified, they could not be removed. It is argued, therefore, that the conditions which fostered emigration from the rural areas in colonial India were an outcome of the nature of colonialism, which had its greatest impact through the land tenure system, and that the nature of the land tenure system has a fundamental impact on the reaction of the rural community to agrarian change and agrarian crisis.

II Ratnagiri district at the beginning of the nineteenth century

Ratnagiri district comprises the south part of the Konkan, the coastal strip stretching from Bombay to Goa. When Ratnagiri was formed into a collectorate by the British administration in 1819, it also included *talukas* which were transferred to the Northern Konkan in 1830¹³ and eventually included in the separate district of Kolaba. Ratnagiri stretches across from the coast up into the Western Ghats, and is intersected by numerous creeks, navigable for small craft right up into the interior of the district in the nineteenth century. The rugged countryside, the many rivers, the steep crags and narrow passes of the Ghats and the jungle which covered much of the area until the nineteenth century, appears to have discouraged settlement inland. As a result, until the eighteenth century, most population seems to have been concentrated on the coast, especially round the major trading cities such as Chaul, Dabhol and Rajapur, which handled trade between the Deccan and the Middle East, and along the routes from the coast to the main Ghat passes;¹⁴ the hinterland seems to have been much less developed.

The agricultural system of the Konkan differs considerably from that of the neighbouring Deccan. The Deccan is a relatively level plateau with a semi-arid climate, but Ratnagiri has a very high rainfall, which makes it easy to grow wet rice in the valley bottoms, and the steep hillsides if they are terraced. Outside the pockets of highly productive rice land, however, most of the district in the early nineteenth century was barren hill land, much of it too steep to plough, where semi-permanent and shifting cultivation of hill grains was practised, allowing very long fallows¹⁵. The crops grown on these

hills were a variety of pulses and oil seeds and most importantly dwarf millets, the staple of the poor, which though nutritionally better than rice had a much lower yield per acre. Moreover, though rainfall in Ratnagiri is very heavy, it is concentrated in a short period in the monsoon months, and as the soil does not retain the water well, only a very small amount of double cropping can take place without irrigation.¹⁶ In the nineteenth century, some 'cold weather' crops of rice, vegetables, pulses and hemp were grown with irrigation in rice fields, and perennial crops such as sugar cane and tree crops (bananas, mangoes, coconuts and betelnuts) were grown in gardens irrigated from wells, tanks and rivers, but irrigation was expensive, and cultivation was overwhelmingly in the monsoon season (see below Chapter 2.31).

Before the sixteenth century the Southern Konkan was divided into small principalities ruled by chiefs such as the Raja of Sangameshwar and the Raja of Vishalgad. At the end of the fifteenth century most of modern Ratnagiri district came under the control of the Sultan of Bijapur in the Deccan, who initiated the first land revenue settlement and attempted to open up the district by granting village revenues to village *zamindars* known locally as *khots*. However, two factors militated against the regular settlement and development of the district at this period. Firstly, the economic importance of the major trading ports made them targets for European attack. The Portuguese, who had a factory at Chaul from the early sixteenth century, attacked many of the Konkan ports in the mid sixteenth century, especially Dabhol, and in the seventeenth century the English and the Dutch attacked ports and shipping in the area, and established factories at Vengurla (Dutch) and Rajapur (English).¹⁷ Secondly, as the region was not easily accessible from the Deccan, on account of the steep narrow passes through the mountains at this point and the jungle and many creeks in the Konkan itself, control by the Sultans of Bijapur was weak. For this reason Ratnagiri and Kolaba were ideally suited as a theatre of operations for opponents of Bijapur, most notably Shivaji. Between 1655 and 1660 Shivaji extended his operations against the Muslim powers from his Poona *jagir* into the Northern and Southern Konkan, rapidly gaining control of the area and establishing or

strengthening a number of forts at key points on the coast and in the Ghats, such as Vijayadurg, Suvernadurg and Sundhudurg (Malvan) on the coast, and Raigad and Pratapgad in the Ghats.¹⁸ Though under Shivaji the Southern Konkan appears to have experienced a period of settled government, after his death in 1680 and with the collapse of his kingdom, the Konkan became a battleground for competing powers - the Mughals, the *Sidi* of Jinjira, the Angrias of Kolaba, the Sawants of Vari, and for the factions within the *Naratha* kingdom. With the revival of *Naratha* power in the early eighteenth century under Shahu and the *Peshwas*, and the establishment of peace with the Mughals in 1718, the *Narathas* gradually regained control of the Konkan, culminating in the defeat of the Angrias in 1755.

In the second half of the eighteenth century, the Southern Konkan was therefore relatively at peace, under a regular *Naratha* administration which lasted until the British conquest. In the late eighteenth century this administration made considerable efforts to develop the district, giving many *khoti* grants to open up cultivation. As a result the district experienced a revival of prosperity, stimulated especially by the wealth flowing to the *Chitpavan Brahmins* in the district, many of whom had relatives working in Poona.¹⁹ However, from the last decade of the eighteenth century the district suffered a series of famines, and also suffered from the operations of revenue farmers put into the district as the *Naratha* administration began to decline under internal and external pressures.²⁰ Nonetheless, the district suffered less than the Deccan and Northern Konkan from the wars with the British from the late eighteenth century, which were mainly fought in the Deccan, and was finally taken over by British troops from Malvan and Bankot in 1819, with little organised opposition.

III Migration from Ratnagiri district in the late eighteenth and early nineteenth century

In most peasant societies, past and present, there appears to be a considerable degree of localised migration²¹ and the Konkan in the eighteenth and early nineteenth century was no exception. In times of

famine there appear to have been temporary and permanent movements of population,²² and there may have been some seasonal migration for agricultural work. There was also, as in the rest of India, marriage migration by women who after marriage went to live in their husband's village.²³ Mainly, though, there appears to have been a movement of individual peasant families between villages in search of better conditions. An example of one such migrant in Ratnagiri district can be found in the mid nineteenth century example of 'Gangajee bin Dhondjee Ghanekur', a *Kunbi* cultivator from Tide village in *tarf* Natu Palwan of Taluka Dapoli, whose father had first lived at Shrivtur village in Natu Palwan; he then moved to cultivate in Nigudshet village, but after four years moved to Tide, where the family finally settled and apparently prospered, until they fell foul of the *khot*.²⁴ It is very difficult to obtain systematic data on this type of migration, but the extent of inter-village migration which occurred in Ratnagiri in the eighteenth century can be indicated by some of the house tax records, which give details of the reasons for the increase or decrease in households since the previous survey. The rate of turnover of village population indicated by these records varies enormously from village to village. As can be seen from Table 1.1, in Ragaon, in *taluka* Sangameshwar, nearly 50% of households emigrated between 1780 and 1790, while no households left Dingani at all in the same period, and only 13% of households left Wandri.

It seems clear that the peasantry in Ratnagiri were prepared to move between villages, and even across district boundaries, in search of a better life, though those who moved appear, from the sketchy evidence in the records, to have been mainly lower caste and probably poor.²⁵ There was also, however, in the eighteenth and early nineteenth century, longer distance migration of higher castes from Ratnagiri district. Firstly, there was migration of *Brahmans*, especially *Chitpavan Brahmans*, to serve in the administration of the *Naratha* Empire in Poona and elsewhere in the Deccan, after a *Chitpavan Brahman* from Ratnagiri district, Balaji Vishvanath, was appointed *Peshwa*, (chief minister, and later in the century effective ruler) by the Raja, Shahu, in 1713. Balaji Vishvanath founded a dynasty, and his heirs controlled the Peshwaship until the British conquest of the

Naratha Empire in 1818. As a result his caste fellows, the *Chitpavan Brahmins*, along with other *Brahmins* from Ratnagiri, were able to secure many posts in the service of the *Naratha* government in Poona; however, they retained their family lands and interests in Ratnagiri district, where many returned after the defeat of the *Peshwa* by the British.²⁶ Secondly, there was the migration of members of the *Naratha* caste to serve in the armies of the *Peshwa* and other *Naratha* chiefs, especially during the expansion of the *Naratha* empire in the mid eighteenth century. And lastly, the British army recruited from the district, for service at the British settlements in Bombay and later also in Malvan. Before the fall of the *Naratha* Empire recruits appear to have been mainly Muslims, but after the British conquest of the *Naratha* empire recruitment became much more extensive, mainly among the *Narathas* and related castes who had formed the backbone of the *Peshwa's* armies (though there may also have been increased recruitment of untouchable *Mahars*).²⁷ The popularity of service in the army can be assessed by the number of military pensioners in the district. In 1852, Rs.535,000 out of the annual tax revenue of Rs. 910,800 raised from Ratnagiri district was being paid back in the form of military pensions.²⁸ By 1881 the census showed that there were 1,718 military pensioners in the district, the greatest number for any area of the Bombay Presidency.²⁹ Though there were a few troops stationed in Ratnagiri, most recruits from the Konkan would have been stationed at Bombay or Poona, and returned after their period of service to their native district, where their knowledge of the cities may have been useful in encouraging others to migrate.

IV Patterns of migration from the mid nineteenth century

In the eighteenth and early nineteenth centuries, emigration for work from Ratnagiri district was a relatively small scale migration of professionals, and largely confined to the higher castes. From the mid nineteenth century, however, the character of the migration changed, to a mass labour migration which affected nearly every family in the district. By the late nineteenth century, Ratnagiri district had one of the highest rates of outmigration in Bombay Presidency, and indeed for

India as a whole (see Table 1.2), and these figures do not include migration overseas or outside the Presidency, for which there is no data on district origins in the censuses. Already in 1881 18% of those born in the district were living outside it, and this rate of out-migration rose steadily, until after World War I when it reached 21%.

Though the general rate of emigration from Ratnagiri was considerable, it was the scale of migration to Bombay city which was particularly remarkable. In 1881, 72% of emigrants from Ratnagiri into Bombay Presidency went to Bombay city, and by 1911 this had risen to 87%, representing 14% of all those born in Ratnagiri. Other destinations absorbed far fewer migrants: in 1911, 1.2% went to Thana district (adjacent to Bombay and containing a number of sizeable industrial centres), and less than 1% to each of the other main destinations - Poona district, Kolaba district, Sawantwadi state, Kolhapur state and Karachi city. The impact of migrants from Ratnagiri on Bombay city was considerable. Migrants from Ratnagiri comprised 19% of the population of Bombay city in 1901, rising to 22% in 1911, the highest of any district in Western India; 27% of all immigrants to Bombay city in 1911 came from Ratnagiri, and they still accounted for 20% of immigrants to the city in 1951.³⁰ This is more remarkable in that Ratnagiri district was not contiguous to Bombay, but stretched along the coast from between 60 to 120 miles south of the city - though it was one of the larger districts of the Presidency in terms of population.

The first mention of unskilled labour migration from Ratnagiri district was in the 1840s.³¹ There are no statistics on migration for this period, but Collectors' reports noted the presence of fishermen from Ratnagiri manning the boats in Bombay harbour in 1838³² and by the 1850s seasonal migration of cultivators to Bombay in the slack agricultural season was a common phenomenon. Captain Wingate noted during a tour of the district in 1852 that cultivators from every village in Lanje taluka (an inland taluka later divided between Sangameshwar and Rajapur) went to Bombay every October and returned to till the land at the beginning of the monsoon, leaving their wives and other relatives to look after their holdings.³³ Employment opportunities in Bombay city in the first half of the nineteenth

century must have reflected the growth of the city, from an East India Company factory and military base at the turn of the century, to the administrative centre of the Bombay Presidency and one of the busiest ports in the sub-continent. Bombay's population appears to have grown only slowly in the first decades of the nineteenth century, estimates of 235,000 in 1812 (possibly swollen with famine refugees from the Deccan)³⁴ and 221,550 in an 1814/15 census³⁵, rising to only an estimated 236,000 in 1836. In the 1840s, the population appears to have expanded, however, with a census in 1848 giving the population as 566,119, though some of this increase probably reflects the improved enumeration of Captain Bayne's census over previous estimates.³⁶ Much of the expansion appears to have been connected with increasing trade with the hinterland in the 1830s, especially in exports of cotton from the Deccan, facilitated by the building of a cart road over the Ghats in 1830.³⁷ As the population of the city expanded, major public works were necessary to enable them to be accommodated^m on the marshy island and peninsular, leading to the construction of the Colaba Causeway in 1838 and the Mahim Causeway in 1845, and a major drainage and waterworks scheme in 1850.³⁸ Many early employment opportunities for migrants from Ratnagiri were probably as labourers on public works schemes or in the docks, which were developing with the increase in trade.

The most rapid expansion of the city, however, came in the late 1850s and early 1860s, and by 1864 the population had reached 816,562.³⁹ The growth of the city at this period was related in part to improvements in transport which facilitated trade with the hinterland. In 1853 the first stretch of railway was built, between Bombay and Thana; in 1860 the line was completed to Broach and Baroda; and in 1863 the railway over the Ghats to the Deccan was opened. Sea communications also improved rapidly, with steamship companies beginning regular ferries along the coast from 1866, while the opening of the Suez Canal in 1869 greatly increased the importance of the port of Bombay. At the same time Bombay was developing industrially, with the first cotton mill starting operation in 1856 and six more working by 1860. These developments naturally stimulated the programme of building and land reclamation in the city, with the

Back Bay reclamation, the expansion of the docks, road building, gas lighting, and improvements in the sewage and drainage systems and the water supply. Money for these developments was provided in 1861-5 by the sudden increase in cotton exports from the Deccan, made easier by the development of the railways, but stimulated particularly by the events of the American Civil War which cut off supplies of raw cotton from America to British mills.⁴⁰ With the rising demand for labour in the city in the late 1850s and early 1860s, workers flooded in, particularly, it appears, from Ratnagiri. In 1864, when the first statistics are available, a census of Bombay city showed that there were 111,478 people born in Ratnagiri living in the city, the largest group of those born outside Bombay Island (followed by 67,646 born in Poona district, and 60,123 born in Thana district, which was adjacent to Bombay.).⁴¹ This was at the height of the 'cotton boom', and many of the migrants must have been employed as general labourers on the building and land reclamation schemes, though some may already have been working in the cotton mills. The harbour and dockyards also provided considerable employment; in 1864 (and in 1872) one of the largest concentrations of migrants from Ratnagiri lived in the Harbour district of the city.⁴²

From 1861-5 the sudden increase in prosperity in Bombay led to a mania of speculation in shares and property in the city. In 1865 the share mania ended in a crash, when all the Bombay banks failed, which brought the building boom to an end, though employment in the mills may not have been affected.⁴³ As a result, many workers from Ratnagiri left the city, with only 56,879 remaining in 1872 (see Table 1.3). Emigration revived, however, in the 1870s and 1880s, as business recovered and reorganised; the Bombay Port Trust, founded in 1873, launched a big expansion of the Bombay Docks in the 1880s; while many more cotton mills began to open in Bombay, with daily employment in the mills rising from 8,130 workers in 1870 to 59,139 by 1890, and Bombay's role as the leading industrial and commercial centre in Western India was secure.⁴⁴ The Census of 1881, the first to show migration from Ratnagiri to all districts of Bombay Presidency, shows that 173,943 people born in Ratnagiri were living outside the district, 15% of those born in Ratnagiri. Emigration continued to rise until

1901, when a drop in emigration, particularly to Bombay, probably reflects the impact of the plague epidemic in 1897/8, which led to a mass exodus from the city.⁴⁵ Emigration recovered in 1911, and continued at a high rate into the mid twentieth century.

Though migration existed in the eighteenth and early nineteenth centuries, the massive increase in its scale in the mid nineteenth century marks a change in its character from the labour mobility of specialists and professionals, to a mass labour migration which affected nearly every family in the district. A closer analysis of the destination, composition and character of the migrant stream is necessary in order to understand the nature of this migration.

V General Characteristics of migration from Ratnagiri district

1 Destination.

Migration from Ratnagiri was overwhelmingly rural-urban in character, with the great majority of emigrants from the mid nineteenth century onwards going to Bombay city, while Ratnagiri itself remained predominantly rural.⁴⁶ Even within Ratnagiri, there appears to have been an element of rural-urban migration in the nineteenth century, since sex ratios for the few towns in the district were higher than those for the district as a whole;⁴⁷ and it is possible that this was part of a process of 'step-wise' migration, with migrants moving first into the towns in the district, before deciding to move on to Bombay. This pattern of rural-urban migration from Ratnagiri contrasts with patterns of migration from many other districts in Western India, where destinations of migrants were more diverse, and not so obviously urban (see Table 1.2).

There is also a very distinctive pattern in the occupations which migrants from Ratnagiri adopted in Bombay city. Though there is no data on the occupations of migrants from Ratnagiri before 1900, by 1911 36% of migrants to the city were working in the mills, comprising between 49% and 56% of the total mill labour force.⁴⁸ The first cotton mill opened in Bombay in 1856, and by 1870 the mills were employing 8,130 workers daily, rising to 59,139 by 1890, and apart from a drop during the plague years of 1897/8 employment in the

mills continued to rise steadily until the late 1920s.⁴⁹ Not all those listed in the censuses as 'mill workers', however, were employed regularly in the mills, since besides the regular employees there was a large pool of casual labour, known as *badlis*, estimated at one third of average full time employment in the mills in 1892.⁵⁰ These were recruited on a daily basis to cover absenteeism through the agency of the 'jobbers' who controlled recruitment into the mills.⁵¹ Of those migrants who did not enter the mills, the 1911 Census shows that 15% became general labourers working in the docks and the building sites, so that altogether at least 51% of migrants in 1911 had become a part of a predominantly unskilled working class in the formal sector in Bombay, while 21% entered the informal sector as artisans, shopkeepers and domestic servants. This pattern of migration into unskilled work in the formal sector in Bombay can also be found from other districts of Bombay Presidency by 1911, notably from the north and west Deccan (Satara, Kolhapur, Poona, Sholapur, Ahmednagar and Nasik), and from the Konkan (Thana and Kolaba), but in contrast migration from the Gujarat (Cutch, Katthiawar, Surat, and Ahmedabad) was mainly into the informal sector, or into the professions, and no other district provided as many mill workers as Ratnagiri.⁵²

ii Age and sex composition.

Ratnagiri was also distinctive in the sex composition of the migrant stream. There are many weaknesses and gaps in the census data on the age and sex distribution of migrants. Though the censuses from 1881 give details of the number and sex of those born in Ratnagiri living in other districts of Bombay Presidency, only for Bombay city in 1911 and 1921 is the age distribution of migrants from each district given. Any further investigation of the age distribution of migrants has to rely on inferences to be drawn from the census data on the age and sex structure of Ratnagiri district itself.

The data shows, firstly, that the majority of migrants from Ratnagiri were male. While the censuses of 1846 and 1851 showed a predominance of males in Ratnagiri district (a sex ratio as high as 111 in 1851), all later censuses showed a surplus of females in the district, both among the population as a whole, and among those born

in Ratnagiri. In contrast, the sex ratio of migrants from Ratnagiri was high, with men outnumbering women by nearly two to one among migrants from Ratnagiri to Bombay city in the late nineteenth and early twentieth centuries (see Table 1.3). This pattern of predominantly male migration was not the most common pattern of emigration in Bombay Presidency, since from most districts the majority of emigrants were female (see Table 1.2), who, since they moved to neighbouring districts, probably migrated to marry, since marriage residence in India was mainly patrilocal.

Secondly, though data on the age structure of migrants from Ratnagiri living in Bombay provides little detail, an examination of the age structure of Ratnagiri district itself shows that it differs from that of the Presidency as a whole, and it seems likely that this difference can be attributed to migration. Already in 1891 40% of the population of Ratnagiri district were under 14, 46.2% aged 15-49 and 13.8% over 50, as compared to the Presidency as a whole, where 39% were under 14, 50% aged 15-49, and 11% aged over 50.⁵³ A more detailed examination of Ratnagiri's age structure across the censuses from 1881-1901 shows that the cohorts of males aged 15-25 and females aged 15-20 are smaller than expected, and this cannot be accounted for by variations in the death rates. A comparison of Fig.1A and 1B, for example, shows that the cohort born in 1861-6 (aged 15-20 in 1881 and aged 25-30 in 1891) was actually smaller in 1881 for both males and females than in 1891; and similarly, the cohort born in 1856-61 (aged 20-25 in 1881 and aged 30-35 in 1891) was smaller in 1881 than in 1891. This suggests out-migration of males and females aged 15-20, and return migration after that age. The larger size of the 25-35 age group cannot be explained by immigration into Ratnagiri of men and women born outside the district, since immigration to the district was small (2% of the population in 1901 were born outside the district).⁵⁴

This pattern of out-migration of predominantly young men, and return migration after about 10 years in the city, is given support by the data on marriage from the censuses. The censuses of Ratnagiri reveal that there were more married women in the district than married men, a surplus which given the social characteristics of

Western India, cannot be explained in terms of polygamy. From this surplus of married women (see Table 1.4), it can be deduced that by 1891 43% of men born in Ratnagiri district but living outside the district at the time of the census were married men who had left their wives behind, while in 1901 this had risen to 44%. The data on age, sex and civil condition of the population of Ratnagiri, and of Bombay city, suggest, therefore, that a pattern of circular migration had been established from the district to Bombay city by the last decade of the nineteenth century.

iii Seasonality of migration

While the census data suggests a pattern of circular migration, there is considerable evidence from other sources to suggest that seasonal migration from Ratnagiri to Bombay city was also a common practice, with migrants travelling to work in Bombay between October and December, and returning to Ratnagiri between March and May for the cultivating and marriage season (a practice which continues to the present day).⁵⁵ Several of the British administrators of Ratnagiri commented on the phenomenon,⁵⁶ and though there is little statistical data to confirm it since such a movement of labour is not picked up by decennial censuses, the passenger records of the steamships which plied along the coast do suggest seasonal fluctuations in traffic. The steamship company records for 1911-13⁵⁷ suggest that there were in fact two patterns of movement: those who returned to the district from Bombay for one or two months in the marriage season (February to March), who appear to have been the better-off, probably circular, migrants, since this pattern shows up clearly in second class accommodation on the steamers; and those seasonal migrants who went home in April or May until October or November, presumably to help with cultivation during the monsoon and harvest period, who mainly travelled third class. The importance of this seasonal influx of labour into Bombay in the mid nineteenth century is indicated by the monthly statistics on deaths in the city between 1848 and 1872, which show that deaths reached a peak during February-July and were lowest during August-October, (when one would have expected the peak to occur

from May to October during the hot weather and subsequent monsoon season and the lowest rates to be in the cooler dry season from November to March). The highest ratio of male to female deaths and the highest ratio of deaths aged 15-55 to total deaths also occurred during the months of November-January.⁵⁸ There seems clear evidence, then, that a pattern of seasonal rural-urban migration to Bombay, along with longer term migration, was established from the mid nineteenth century. Such seasonal migration was, and still is, a common feature of rural-urban migration in India, and is still a feature of migration from Ratnagiri district to Bombay.⁵⁹

iv Caste and religious composition of the migrant stream

Though the age and sex composition of the migrant stream can be determined in a fairly straightforward fashion from the census statistics, its caste and religious composition is less easy to determine. Though there is ample data in the censuses on the caste composition of each district, and of Bombay city, this is not usually broken down into a division between immigrants and native born residents. There are, however, detailed tables in the 1911 and 1921 censuses, which break down migrants from Ratnagiri (and other districts) living in Bombay city into caste and religious groups, giving also their occupations in the city and the ratio of dependents to workers, and their ages in three broad groups (see Table 1.5). To determine the migration rates of the various castes in Ratnagiri before this date, an indirect method of measurement had to be used, by examining the growth rates and sex ratios of castes in the district. However, this has to be employed with the greatest caution. In view of the fact that the majority of emigrants were male, a sex ratio below that for the district as a whole might indicate a high rate of migration; on the other hand, if a particular caste tended to migrate as a whole family, this would not be picked up by a study of the sex ratios. Similarly, little work had been done on the impact of migration on birth and death rates, and overall rates of growth in the sending community. Permanent whole family migration might be expected to lower the rate of growth of the sending community both because the emigrants are removed from the community, and because, as mainly

young men and women of childbearing age, their absence will have the effect of lowering the birth rate. Significantly, the data on birth and death rates for Ratnagiri, though very inadequate, do suggest that both were below average for Bombay Presidency.⁶⁰ On the other hand, seasonal and circular migration might have the opposite effect on the sending community; firstly because it raises the income for the family as a whole (whether or not any remittances are sent back), which will raise consumption per head and so reduce mortality (and possibly increase fertility); secondly because with regular visits home by migrant men, marital fertility may not be reduced by this pattern of migration; and thirdly, work on population patterns in Europe suggests that with a rising demand for labour marital fertility may even increase, though it is not clear whether the mechanisms to make such adjustments operated in India at this period (see Chapter 3).

Given these problems, it is difficult to draw many firm conclusions from the data on caste in Ratnagiri itself. The data from the censuses presented in Table 1.6, however, do suggest that there was a rise in out-migration of *Brahmans* and *Bhandaris* between 1851 and 1872, and a steadily increasing out-migration of *Kunbis* over the century; the data from the censuses on sex ratios also suggest that male seasonal/circular migration from Ratnagiri was concentrated in the 1870s in the *Naratha /Kunbi* caste, and was also high among Muslims, and among the *Bhandari*, *Whavi* and *Parit* castes, all of whom had a sex ratio below 95. In 1881, the *Nahar*, *Sutar* and *Kumbhar* castes had joined them in sending out a noticable proportion of males, and by 1901 also the *Gavli* and *Lohar* castes. By 1911 only a handful of major castes (*Chambhar*, *Dhangar*, *Koshti* and *Koli*) had sex ratios over 95 in Ratnagiri. However, though a low sex ratio certainly indicates higher rates of male emigration, a high sex ratio can also be compatible with emigration, where females also migrate in considerable numbers: the *Chambhar* caste had the highest emigration rate in the district in 1911 and also a sex ratio of 102 in Ratnagiri in 1911.

A more reliable guide to the caste composition of the migrant stream is the data from the 1911 and 1921 census of Bombay city (see Table 1.5), though clearly the caste composition of migrants from Ratnagiri to other destinations may have been different. This data

shows that the caste most prone to migrate to Bombay from Ratnagiri at this period was the *Chambhar* or leather worker caste. This caste exhibits a high propensity to migrate to urban areas in the nineteenth and twentieth centuries, not just in Ratnagiri but all over India, which may be connected with the demand for their skills in repairing the leather belts used in textile machinery, and in the mass production of leather goods, leather seats in railway carriages etc. This work would not usually be done by caste Hindus, since the work was polluting because it involved handling dead animals.⁶¹ This caste however, only represented 2% of the population of Bombay born in Ratnagiri. Similarly, a number of other small castes with traditional skills of use in the city - the *Koli* fishermen, the *Washermen* (*Parit*), the *Tailors* (*Shimpi*) and the *Goldsmiths* (*Sonar*) - also show a high propensity to migrate there, but altogether these only comprise 2.1% of those born in Ratnagiri in the city. Of the larger castes, those with the highest propensity to migrate were the *Bhandhari*, *Vani*, and *Naratha/Kunbi* castes. The *Bhandari* caste were cultivators who specialised in coconut growing and toddy tapping; they lived mainly on the coast, and were also boatmen, apparently owning many of the small boats which plied up and down the coast.⁶² The *Vani* caste were merchants and traders, though many also owned some land. But the largest group with a high propensity to migrate were the *Naratha/Kunbi* caste. *Naratha* and *Kunbi* were the main agricultural castes in Ratnagiri. Though they are listed separately in the census caste statistics, they were not in fact separate castes, but status groups within the *Naratha/Kunbi* caste. *Narathas* were mainly wealthier cultivators, in some cases related to important families in the administration or army of the *Naratha* empire. Some held official positions in their villages, such as headman or *khot*, and as tenants they usually paid lower rents than *Kunbis*. *Kunbis* were the poorer cultivators, predominantly tenants, and rarely holding any offices in the village. They, unlike the *Narathas*, had to perform labour services for the village landlord.⁶³ *Naratha* and *Kunbi* were not separate castes, however, for it was possible to move between one and the other.⁶⁴ Movement between the two groups almost certainly accounts for some of the oddities in the census statistics. For example, in

1911 the census shows 114,159 *Marathas* born in Ratnagiri living in Bombay, but only 7,867 *Kunbis*; yet the groups were similar in size in Ratnagiri in 1911, and the *Kunbis* had an even lower sex ratio than the *Marathas* (82 as opposed to 85). Since there were 30,447 more *Kunbi* females than males in Ratnagiri in 1911, one would expect to find more than 5,888 *Kunbi* male migrants from Ratnagiri in Bombay in that year. Similarly, as there were 36,515 more *Maratha* male than female migrants from Ratnagiri in Bombay in 1911, but only 23,927 more *Maratha* females than males in Ratnagiri district in that year, there is clearly some discrepancy. This could be explained if *Kunbi* migrants to Bombay called themselves *Maratha* in the census.⁶⁵

On the other hand, there are some castes represented in Ratnagiri whose numbers in Bombay in 1911 were so insignificant that they did not appear in the Bombay census statistics at all. Though many of these were castes with few members in Ratnagiri, some were important castes, whose migration rates to Bombay were therefore probably low. Most notable of these were the *Gurav* and *Kumbhar* castes. The *Gurav* caste were temple servants who attended the village shrines, and in return were usually provided with a payment in kind from the villagers (*punj*), or sometimes a small piece of rent free land instead.⁶⁶ The *Kumbhar* caste were potters (also responsible for performing some rituals for the dead). Few of them were village servants, and they made a living by selling their wares.⁶⁷

Finally there are those castes and religious groups whose migration rates to Bombay, while high enough to be recorded in the Bombay census, were significantly below that for the district as a whole (17.9%). Some of the most significant of these were the *Brahman* castes, who in Ratnagiri were mainly landowners and landlords, though some were priests. Another important group were the Muslims, who followed varying occupations, mainly cultivators, traders and fishermen, and lived on the coast and at the inland trading centres. Another major group with apparently lower than average rates of emigration was the *Mahar* caste, the untouchable scavenger caste, who were provided with small pieces of land or regular payments by the village in return for their services.⁶⁸ These were the largest groups

with this lower rate of emigration, the others being smaller specialist castes.

The most noticeable feature of the caste and occupational composition of the migrant stream to Bombay, is the predominance of the agricultural castes. Castes with connections with trade or seafaring also show a high propensity to migrate, except the Muslims, though there is some evidence to suggest that they had a high rate of overseas migration, which is not recorded in the censuses.⁶⁹ Castes with traditional skills in demand in the city, such as the *Chambhar* caste, also have high rates of migration, but these castes are less dominant in the migrant stream than the agriculturalists. This contrasts with migration from the Gujarat into Bombay where traders predominated over agriculturalists. Also noticeable is the low proportion of the untouchable castes in the migrant stream, caused by the low rate of migration of the major untouchable caste, the *Mahar*. This again contrasts with the pattern of migration to the city from some other districts of the Presidency, notably Ahmednagar, and Nasik, where *Mahars* constituted a much larger proportion of the migrant stream,⁷⁰ and a similar pattern of significant untouchable migration can be found in other parts of India.⁷¹

A more detailed analysis of the sex ratios, dependency ratios, female work participation ratios and occupations of migrants from Ratnagiri to Bombay in 1911, shows that not only did different castes have different rates of migration, but also different migration patterns (see Table 1.5). Firstly, the proportion of women migrating varies greatly between castes and religious groups. Very few women from the fishing castes, or from the various Muslim groups, migrated to Bombay, while the highest rates of female migration are to be found among the untouchable and low castes - *Mahars*, *Chambhars* and *Parits* - and among some of the high status Hindu artisan castes - the *Shimpis*, *Sonars* and *Sutars*. It seems reasonable to assume that the castes with a high female participation in the migrant stream were more likely to be settling permanently in the city, while those with a low female participation were more likely to be seasonal or circular migrants, since many of them would be married men who had left their wives behind in the rural areas.

Secondly, there are differences in the work participation ratio of women of different castes in the city. Female work participation rates are lowest among the *Brahmans* and the Muslims, and also among the higher status Hindu craft castes, notably the *Sutar*, *Sonar*, and *Shimpi* castes. They are highest among the outcaste and low castes - *Mahar*, *Chambhar* and *Parit* castes- and also quite high among the *Gavli*, *Teli* and *Naratha/Kunbi* castes. Clearly, female work participation is closely linked to patterns of migration. Only those in the higher earning occupations, such as the *Sonar*/Goldsmith caste,⁷² could afford to support a dependent wife in the city, and these groups had a high female migration rate. For the rest, the choice for women rested between working in the city with their husbands, if they could find suitable employment, or staying in the rural area while their husbands travelled to work seasonally or for a period of years in the city.

v Regional variations in migration from Ratnagiri

Migration from Ratnagiri can be seen, therefore, to have some distinctive features not found in other areas, most notably the dominance of caste Hindu agriculturalists in the migrant stream, and its high sex ratio. It is also clear that migration did not affect the district evenly, and that patterns varied not only between castes and communities but also across sub-regions within the district. Ratnagiri was divided into eleven administrative sub-divisions, or *talukas*. Since their boundaries were often re-arranged in the course of the nineteenth century, it is difficult to analyse differences in their population size over time before 1901 and, as with the growth rates of castes, it is difficult to interpret variations in *taluka* growth rates in terms of migration. As can be seen from Table 1.7, over the period 1891-1921 the highest rates of population growth were in the southern *talukas* of Vengurla, Malvan, Deogad and Rajapur (an increase of between 8% and 23% between 1891 and 1921), and the lowest in the northern *talukas* of Dapoli, Khed, Chiplun and Mandangad (a drop of between 1% and 11% between 1891 and 1921). This could indicate higher rates of all types of migration from the northern *talukas* than those in the south, especially since the censuses appear to have been taken in February, when seasonal workers were in Bombay, though some longer

term migrants may have arrived home by this time for the marriage season.⁷³ However, population growth rates must be used with caution as indicators of migration: the data could indicate instead higher rates of permanent migration from the north of the district, and higher rates of seasonal migration from the south; or the differences could be explained by higher death rates/lower birth rates in the north than the south, indicative of greater poverty in the north.

Though the data on population growth may be unsatisfactory, the data on the population structure of the *talukas* makes it possible to draw some conclusions about variations in migration rates through the district. The fullest data are for 1901 (see Table 1.4) and this shows that the three *talukas* in the south of the district, furthest from Bombay - Vengurla, Malvan and Deogad- had a higher than average sex ratio and household size, and a lower than average surplus of married women over married men: this does suggest that there was less migration from these *talukas* than from elsewhere. It could also indicate migration was predominantly of whole families, but high population growth rates in these *talukas* between 1891 and 1901 make it unlikely that whole family migration occurred on a large scale. A report by the Settlement Officer suggested that migration from this area was mainly of higher castes with professional and administrative jobs in Bombay, which accords well with this interpretation of the data.⁷⁴

On the other hand, the most northerly *talukas*- Mandangad, Chiplun, Khed and Dapoli- present a different pattern, with lower sex ratios than the south, lower average household size, and a larger surplus of married women over married men; they also have negative population growth rates from 1891-1921. This evidence does seem to indicate that migration was higher from the northern *talukas*, with considerable permanent emigration from the far north of the district. Finally, the combination of a low sex ratio, a large surplus of married women and moderate rates of population growth in the central *talukas* of Guhagar, Sangameshwar and Ratnagiri suggests that from this region seasonal and circular migration was most important.

Though this pattern is clear in 1901, however, it becomes less so in succeeding censuses. Though average household size remains lower in

the north of the district sex ratios become more uniform, with only Guhagar (very low) and Vengurla (very high) standing out. There is no data on civil condition by *talukas* for any year except 1901. Population growth rates, however, seem to even out between the districts after 1901. This does suggest that in the nineteenth century there were distinct regional variations within the district in the rates and character of migration, but that after 1901 these local differences began to disappear. This could be explained partly by the development of more permanent migration replacing some seasonal and circular movement, and partly by economic change in the district—perhaps caused by emigration—and certainly by the wider spread of information networks through the district.

vi Inter-village variation in migration rates.

An examination of the growth rates of individual villages in Ratnagiri and Sangameshwar *talukas* between 1830 and 1911, and between 1911 and 1961 (see Table 1.8A and B) shows that there were very substantial variations in rates of population growth between villages. This could be partly a result of the chance impact of disease or crop failure, or of the longer term impact of endemic poverty on the birth and death rates. Alternatively, these differences could be explained by migration, either internal migration to other villages in the district, or external migration to Bombay and other destinations outside Ratnagiri.

Though some variations between villages may be a result of chance factors, an examination of the data shows clear patterns of growth in different parts of the *talukas*, and between villages with different tenurial systems, suggesting that either endemic poverty or migration are mainly responsible for the varying rates of growth. Firstly, between 1830 and 1911, the highest rates of growth in the two *talukas* are found in *khoti* villages on the coast of Ratnagiri *taluka* and along Jaigad creek (242% over 81 years), and in the inland hill villages of *taluka* Sangameshwar, which were also all *khoti*; while the lowest rates of growth were to be found in the *dharekari* villages on the coast of Ratnagiri *taluka*, and similar growth rates in the mainly *khoti* villages of *tarf* Sangameshwar in *taluka* Sangameshwar, which were

situated near navigable creeks, and on a fertile plateau. In general, the villages with high growth rates were the smaller villages, which appear to have grown at a more rapid rate than the larger ones. Between 1911 and 1961, overall population growth was much slower, but now the fastest growth rates are to be found in the inland villages, while the coastal *dharekari* villages still have the slowest rates of increase, and the population of a number of villages on the coast and Jaigad creek, both *khoti* and *dharekari*, actually drop over this period.

There are a number of inferences which can be drawn from this data. Firstly, it seems possible that internal migration was occurring during the nineteenth century, as cultivators moved from the more highly populated villages in *tarf* Ratnagiri and *tarf* Sangameshwar into the less populous parts of the *talukas*. There is no direct data on migration within the district for the nineteenth century, and though the *Naratha* house tax records for the late eighteenth century show some details of population movement, they are too few to establish any trend. (see above Section III). Data on cultivators living in one village and cultivating in another, which are available for the 1820s, do suggest that there was some short-distance movement from the larger to the smaller villages in the locality, but this does not provide evidence of longer distance movements of internal migration.⁷⁵

The evidence does, however, appear to be rather contradictory. If the rapid rates of population growth in the inland villages in Sangameshwar *taluka* are taken to indicate a lower rate of emigration than from villages on the coast, then this is apparently inconsistent with the evidence of the population structure of the *taluka* in 1901. This shows Sangameshwar as having the highest surplus of married women over married men in the district in 1901, and an average household size and sex ratio below the average for the district as a whole, which suggests a high rate of male emigration. However, a rapid rate of population growth combined with a surplus of females over males could be consistent with a pattern of seasonal, or short term circular, migration. The data suggests, therefore, the possibility that in the nineteenth and twentieth centuries, seasonal migration occurred mainly from the smaller, mainly hill, villages, while that the more permanent emigration to Bombay and elsewhere was from the largest

villages and small towns. The data on the northern part of Ratnagiri taluka also suggests that in the coastal areas, even where a pattern of seasonal migration was common in the nineteenth century, a pattern of long term and permanent migration had also been established during the twentieth century.

VI The causes of migration from Ratnagiri.

By the beginning of the twentieth century, the character of migration from Ratnagiri was clearly defined. It was targeted mainly on Bombay, on jobs in the mills and other unskilled labour; young males predominated in the migrant stream; and a complex pattern of seasonal, circular and long term migration had been established. It is the aim of this thesis to explain why this pattern of migration developed and why emigration became such an important feature of Ratnagiri's economy.

It would be possible to argue that the growth of migration from Ratnagiri district to Bombay from the mid nineteenth century was not related to any fundamental changes in the economy and society of either Ratnagiri or Bombay, but simply reflected the growth of networks of transport and information within Ratnagiri, and between Ratnagiri and Bombay. Overland transport within Ratnagiri was difficult throughout the nineteenth century and early twentieth century. The country is rugged, and intersected by many creeks running from the coast to the Ghats which had to be crossed by ferry, while the Ghats themselves could only be crossed by steep, often dangerous, passes. Given the topographical problems, and as the district had little strategic or economic importance, no railway was ever built along the Konkan.⁷⁶ Moreover, in the nineteenth century little was invested by the colonial government in improving roads in the area. Before 1865, when the District Local Fund began to be used for road building, there were very few major roads suitable for carts in the district, most produce still being carried on head loads. Although the road building programme increased considerably after 1865 because of the investment from the District Fund, still, by the 1880s, land transport in Ratnagiri was very poor compared with neighbouring

districts, most of which by this time had a rail network. There was, for example, only one made road in Rajapur *taluka* and in Ratnagiri *taluka* by the end of the 1880s,⁷⁷ and the situation had improved little before 1914.⁷⁸

However, since most travellers by road would have had to walk, the most convenient mode of travel out of the district before the development of the bus network in the mid twentieth century was by sea. Ratnagiri has a long sea coast, and as the district was only approximately 30 miles wide, and intersected by many navigable rivers, a large proportion of the district was within easy reach of water transport. It is not clear exactly how travellers from Ratnagiri by sea reached Bombay in the mid nineteenth century. However, fishermen sometimes travelled up the coast, and there was a long standing country trade on the West Coast involving boatmen from villages in Ratnagiri.⁷⁹ Some of these boats, which were built in villages along the coast,⁸⁰ took passengers, and it was certainly possible to work a passage as a seaman.⁸¹ In the 1820s Captain Dowell noted that peasants from Kondivre village (inland in Sangameshwar *taluka* but on a navigable river), and fishermen from Varavde village (on a creek near the coast) were employed on boats travelling to Bombay.⁸² Employment on the boats provided extra income for cultivators in the slack agricultural season, and no doubt provided an introduction to Bombay; some of these boatmen, when they reached Bombay, appear to have stayed to work in the harbour during the dry season.⁸³ While already in the mid nineteenth century water transport between Ratnagiri and Bombay was better than land transport, by the late nineteenth century sea transport had developed substantially. The first steamship service down the coast from Bombay opened in 1866, to Kolaba. Very soon there was a regular steamship service all along the coast of Ratnagiri, stopping at the main ports, and there were also small local passenger boats and steam launches running up the main creeks to bring passengers to the coastal steamers.⁸⁴ The records of the steamship companies, the Indian Co-operative Navigation and Trading Co. Ltd., and the Bombay Steam Navigation Co. Ltd., show that in 1911/12 110,754 passengers travelled to Bombay from ports in

Ratnagiri and Malvan *talukas* alone, and 114,717 from Bombay into these *talukas*.⁹⁵

In view of the importance of sea transport one might expect that, if transport is the major factor in determining migration, most emigration would have occurred from the coastal areas of Ratnagiri. It is difficult to obtain clear data on this, and the evidence is rather contradictory. The best support for this hypothesis comes from the data on villages in *tarf* Sangameshwar and *tarf* Devrukh, sub-divisions of Sangameshwar *taluka*, showing that villages on the creeks and rivers of this inland *taluka* had an average growth rate half that for each *tarf* as a whole, between 1830 and 1911. Also, in Ratnagiri and Sangameshwar *talukas* as a whole, the growth rate of the mountainous, landlocked, *tarf* Devle between 1830 and 1911 was one of the two highest (out of 8 *tarfs*) in the *talukas*.⁹⁶ On the other hand, there is evidence to suggest that village location was less important in determining migration patterns than this data might suggest. The other *tarf* with a high growth rate between 1830 and 1911 (see Table 1.8A) was *tarf* Sytowde, located on the coast and the creek, surrounded on three sides by water, and containing a port, Jaygad, which was a stopping place for the coastal steamers and a centre for boatbuilding and fishing. Though the rate of growth for Sytowde dropped between 1911 and 1961, this evidence still suggests that other factors than availability of transport may be at work. Moreover, growth rates of population do not in themselves provide conclusive evidence as to rates of migration, since high rates of population growth can be consistent with high rates of seasonal or short term circular migration, and the low sex ratio in Sangameshwar *taluka* at the end of the nineteenth century suggests that there may have been a high rate of seasonal migration from the inland villages of the district.

The data on village growth rates, therefore, is rather inconclusive. However, it does seem unlikely that transport was the major factor stimulating migration into Bombay in the nineteenth century, though undoubtedly it helped. Transport improvements in Ratnagiri did not arrive until the 1860s; by that time, there was already a substantial pattern of seasonal and circular migration established from Ratnagiri to Bombay. Although transport improvements made the journey quicker

and easier, and facilitated the habit of frequent visits home, the determination of the inhabitants of Ratnagiri to work in Bombay in the mid nineteenth century established the system of migration in spite of the transport difficulties they encountered.

Along with transport, another factor facilitating migration is information. It can be argued that the timing of the development of migration from Ratnagiri, and the predominance of Ratnagiri in migration to Bombay, is a result primarily of the development of networks of information and advice from Bombay to Ratnagiri, thus creating a process of 'chain' migration, in which family and village members followed each other in the same migration route.

It is certainly likely that early links between Ratnagiri and Bombay helped to establish a pattern of migration to the city. Recruitment into the British navy in the early nineteenth century, for example, included members of the *Bhandari* caste, who had a high rate of emigration in the later nineteenth century,⁸⁷ and of the *Maratha/Kunbi* caste, which accounted for over half the migrants from Ratnagiri to the city by the early twentieth century (see Table 1.5). Fishermen, who established early contacts with the city, also had a high rate of migration to the city by the early twentieth century, as did the merchant or *Vani* caste, who would have had early trading contacts with the city. And there is some evidence that a process of 'chain migration' was developing in the district in the nineteenth century. Studies of Ratnagiri in the 1950s and 1960s⁸⁸ have pointed to traditions of migration in particular families and villages, which were also noted in the Settlement records for the 1920s. The Revision Settlement of Sangameshwar *taluka* noted Muslim migration to South Africa in the 1920s from some villages in the north of the *talukas*, which was still continuing in the 1970s.⁸⁹ Muslim migration to South Africa was also found in Khed *taluka*, and the Second Revision Settlement report in 1929 also noted that different villages in the *taluka* provided sailors for particular shipping services - some for the Royal Indian Marine, some for the coastal steam companies, while others mainly owned their own trading boats.⁹⁰ In Malvan, the Revision Settlement report of 1915 noted that most migrants from that *taluka* went into the police and government service.⁹¹ While in Nevre

in Ratnagiri taluka in 1870, some families clearly had greater migration participation rates than others of the same caste: of 14 Maratha landholders who were reported as being absent in Bombay at the time of a survey enquiry, 10 were related (with the same surname).⁹²

In facilitating the process of migration, family and caste members could provide not only information about work opportunities and accommodation available in the city, but also material help. Family members who had already migrated could help relatives to get work in their own workplace, or could provide family members with accommodation if they had a place of their own, and support them while they looked for work.⁹³ They could also help to finance the migration of family members to the city with their remittances. The role of the family does seem to have been important in the migration process in Ratnagiri, but in many areas of India this finance and information was provided by an outsider - the labour contractor. Labour contractors were involved in arranging much of the overseas migration from India in the mid nineteenth century, and also in recruitment for the tea gardens in Assam and South India, and for the mines in Bihar. Much of the labour employed in Bombay city was also recruited and organised through labour contractors. Most notable were the jobbers in the cotton mills, but contractors were also used in the docks and in street cleaning, and probably in many other industries also.⁹⁴ However, I have not yet found much evidence to suggest that labour contractors went out to recruit on a large scale in Ratnagiri, or in the other neighbouring districts. Some jobbers working on the coal ships in Bombay port appear to have gone to recruit in their home villages (mainly in Satara) in the 1920s, providing marriage loans and travelling expenses as an inducement (deducted from the labourer's wages until the loans were paid off).⁹⁵ But research on jobbers in the cotton mills has uncovered no evidence of recruiting by jobbers in Ratnagiri, except possibly in the early years of the industry.⁹⁶ In fact, the only systematic recruiting in Ratnagiri during the nineteenth and early twentieth centuries appears to have been by the army.

Though evidence is difficult to obtain, it seems clear that a process of chain migration, involving family and community networks,

was important in facilitating migration from Ratnagiri, and can account for some of the variation in the migration rates of castes and communities, and for the concentration of migrants from Ratnagiri in particular occupations in Bombay. However, it is difficult to argue that it could be a sufficient explanation of the rates and pattern of migration from Ratnagiri. Though regular contacts between the people of Ratnagiri and Bombay were established at the beginning of the nineteenth century, the pattern of migration to Bombay did not develop until the 1840s, and the volume of migration to the city fluctuated significantly until the 1880s, when a steadier pattern was established. Furthermore, though high rates of migration among some smaller castes can clearly be linked to chain migration, established through early links with the city, the largest community of migrants from Ratnagiri in Bombay by the early twentieth century were from the *Maratha/Kunbi* caste, who comprised 56% of all migrants (see Table 1.5). Though the *Maratha* caste had contacts with Bombay in the early nineteenth century through recruitment to the army, the number of army recruits was very small compared to the size of the *Maratha/Kunbi* caste as a whole;⁹⁷ and yet 17% of the caste were living in Bombay in 1911. It seems unlikely that processes of chain migration from those army recruits alone could have accounted for this. Similarly, regional variations in migration rates cannot be explained by chain migration alone: though migration may have begun in the coastal areas, stimulated by contacts with Bombay, by the later nineteenth century it is clear that there were higher rates of migration from many inland areas. Though processes of chain migration, whereby the family or caste provide information and assistance which leads to a tradition of migration developing from that family or caste group, clearly occurred in Ratnagiri, and helps to explain variations in migration rates between castes and communities, it is not convincing to explain migration from Ratnagiri as a near inevitable development of chance encounters with the city in the early nineteenth century. Though some families and communities clearly acted as pioneers, information about Bombay appears to have been widely disseminated through the district by the mid nineteenth century.⁹⁸ Though networks of transport and family contacts may help to explain some aspects of migration from

Ratnagiri, they cannot fully explain the pattern of migration, nor can they explain why the need to emigrate was so powerful in Ratnagiri district.

Any explanation of the development of migration from Ratnagiri needs, therefore, to take into account the social and economic changes which occurred in the nineteenth and early twentieth century, both within the district, and in Bombay city. Changes in the demand for labour in the city and the district, demographic change, changes in the structure of landholding, and developments in agriculture could all contribute to creating the preconditions for migration; in subsequent chapters, each of these factors will be examined in turn, in order to explore their interrelationship, and their influence on the development of the pattern of migration from Ratnagiri district.

NOTES

1. For a survey of work in this field, see D. Baines, *Migration in a Mature Economy. Migration and Internal Migration in England and Wales 1861-1900* (Cambridge, 1985) Ch.2 pp. 8-44 'Issues in the History of European Emigration 1840-1914'.

2. e.g. M. D. Morris, *The Emergence of an Industrial Labour Force in India* (Berkeley and Bombay, 1965); D. Mazumdar, 'Labour supply in Early Industrialisation: the case of the Bombay Textile Industry', *Economic History Review*, 26,3,Aug.1973; B. Misra, 'Factory Labour during the Early Years of Industrialisation: an Appraisal in the Light of the Indian Factory Commission 1890', *Indian Economic and Social History Review*, 12,1975; R. Chandavarkar, 'Workers' Politics in the Mill Districts of Bombay between the Wars', *Modern Asian Studies*, 15,3,1981; D. Kooiman, 'Rural Labour in the Bombay Textile Industry and the Articulation of Modes of Organization', in P. Robb ed., *Rural South Asia - Linkages, Change and Development* (London, 1983); R. Newman, *Workers and Unions in Bombay 1918-29. A Study of the Organisation of Workers in the Cotton Mills* (Australia 1981); C. P. Simmons, 'Recruiting and Organising an Industrial Labour Force in Colonial India: the Case of the Coal Mining Industry 1880-1939', *Indian Economic and Social History Review*, 13,4,1976; and *idem*, 'The Creation and Organisation of a Proletarian Mining Labour Force in India: the case of the Kolar Gold Fields 1883-1955,' *Salford Papers in Economics* (Salford 1986).

3. C. Bates, 'Regional Dependence and Rural Development in Central India: the pivotal role of migrant labour', (Unpublished mimeo, Cambridge, 1981); L. Chakravarty, 'Emergence of an Industrial Labour Force in a Dual Economy: British India 1880-1920', *Indian Economic and Social History Review*, 15,3,1978; S. Corbridge, 'Industrialisation, Internal Colonialism and Ethnoregionalism in the Jharkhand, India 1880-1980', *Journal of Historical Geography*, 13,3,1987; R. Das Gupta, *Migrants in Coal Mines: Peasants or Proletarians 1850-1947* (Indian Institute of Management Working Papers Series, Calcutta, 1985); P. P. Mohapatra, 'Coolies and Colliers: a Study of the Agrarian Context of Labour Migration from Chotanagpur, 1880-1920', *Studies in History*, 1,2,1985; D. Rothermund and D. Vadhwa (eds.), *Zamindars, Mines and Peasants: the History of an Indian Coalfield and its Rural Hinterland* (Delhi, 1978); A. Yang, 'Peasants on the Move: a Study of Internal Migration in India', *Journal of Interdisciplinary History* 10,1,1979.

4. See for example R. Das Gupta, 'Factory Labour in Eastern India: Sources of Supply 1855-1946, some preliminary findings', *Indian Social and Economic History Review*, 13,3,1976.

5. For example, the study by J. Connell, B. Dasgupta, R. Laishley and M. Lipton, *Migration from the Rural Areas. The Evidence of Village Studies* (Oxford, 1976), shows that intra-village inequality has a high positive correlation with rates of migration. This can be explained, however, as both a cause and an effect of migration, and an historical

investigation might be more successful in determining whether inequalities in land holding are a significant factor in explaining emigration.

6. L. Chakravarty, *op.cit.* (1978)

7. See for example, W. A. Lewis, 'Economic Development with Unlimited Supplies of Labour', *Manchester School of Economics and Social Studies*, 22, 1954; M. P. Todaro, 'Internal Migration in Developing countries: a Survey', in R. A. Easterlin (ed.), *Population and Economic Change in Developing Countries* (Chicago, 1980); O. Stark, 'A Note on Modelling Labour Migration in LDCs,' *Journal of Development Studies*, 19, 4, July 1983.

8. For an overview of theories of migration in relation to Africa, see W. van Binsbergen and H. Meilink, (eds.) *Migration and the Transformation of Modern African Society* (Afrika-Studiecentrum, Leiden, 1978). For a discussion of the different approaches to the study of African labour, see B. Freund, *The African Worker* (Cambridge, 1988).

9. As in G. Omvedt, 'Migration in Colonial India: The Articulation of Feudalism and Capitalism by the Colonial State', *Journal of Peasant Studies*, 7, 2, 1980.

10. e.g. J. Banaji, 'Capitalist Domination and the Small Peasantry: the Deccan districts in the late nineteenth century', *Economic and Political Weekly* Special Number Aug. 1977.

11. On the continuity of aims and strategies between pre-colonial and colonial regimes, specifically in South India, see B. Stein, 'The Character of Old Regime Societies: State Formation and Economy Reconsidered,' (Unpublished mimeo, Cambridge, 1984). For an analysis of the nature of the pre-colonial state in late eighteenth century Maharashtra and its agrarian base, see F. Perlin, 'White Whale and Countrymen in the Eighteenth-Century Maratha Deccan: Extended Class Relations, Rights and the Problem of Rural Autonomy under the Old Regime', *Journal of Peasant Studies*, 5, 2, 1978.

12. H. Alavi has coined the term 'Colonial Mode of Production' to define the nature of agrarian relations in colonial India; see H. Alavi, P. Burns, G. Knight, P. Mayor and D. McEachern, *Capitalism and Colonial Production* (London, 1982).

13. *Gazetteer of the Bombay Presidency*, Vol. X Ratnagiri and Sawantwadi (Bombay, 1880), p. 267 (henceforth *Gazetteer* (1880)).

14. *Gazetteer* (1880) p. 175.

15. For a general explanation of systems of fallowing in the tropics and sub-tropics see H. Ruthenberg, *Farming Systems in the Tropics* (Oxford, 1971).

16. See *Annual Report of the Director, Land Records and Agriculture, Bombay, for the year 1889/90* (Bombay, 1890) Acc.A to Return III p. xcvi.

17. *Gazetteer of the Bombay Presidency* Vol. I part II History of the Konkan, Dakhan and Southern Maratha Country (Bombay, 1896) pp. 29-79.

18. G. S. Sardesai, *New History of the Marathas* Vol. I (Bombay, 1957) Ch.V pp. 117-140.

19. H. Fukuzawa, 'Land and Peasants in the eighteenth century Maratha Kingdom', *Hitotsubashi Journal of Economics*, 6,1, June 1965.

20. A. Wink, *Land and Sovereignty in India: agrarian society and politics under the eighteenth-century Maratha Svarajya* (Cambridge, 1986).

21. e.g. P. Laslett and D. Eversley, *Introduction to English Historical Demography* (Cambridge, 1966) Ch. V p. 165 on the village of Clayworth in the seventeenth century.

22. e.g. *Selections from the Records of Bombay Government* N.S.no. 197, 'Captain Dowell's Notes on the Survey of Old Ratnagiri Taluka' (Bombay, 1912) p. 55, (henceforth *Dowell's Notes*): most of the *watandars* (permanent cultivators) of the village of Tulsani, in Sangameshwar taluka, had left the village in the great famine twenty or thirty years before (i.e.1800-1810). There also seem to have been some movements of population from the Deccan to the Konkan during the famines of the late eighteenth and early nineteenth centuries, since conditions in the Konkan were generally better: e.g. Pune Archive, Government Outward Letter, Ratnagiri, Vol. 9 1824 dated 14.9.1824 para. 2, remarks that people were flocking to the Konkan ports from the Deccan for grain because of crop failures. See also Lieut. Col. A. T. Etheridge, *Report on Past Famines in the Bombay Presidency* (Bombay, 1868) para. 55, Collector of Thana's report para. 58, Sub-Collector of Kolaba's Report para. 3, and Collector of Ratnagiri's Reports para. 7.

23. W Rowe, 'Marriage Network and Structural Change in a North Indian Community', *South Western Journal of Anthropology* Vol. 16 1960.

24. Maharashtra State Archives Bombay Revenue Department Files (hence MSA RD) Vol. 61 1875 no. 4/421 of 1873 Appendix II.

25. In the eighteenth century house tax records (Pune Archive, Peshwa Daftar, Konkan Jamao, Rumals 496 and 497), of 63 instances, in 11 villages in Sangameshwar taluka, where details are given of people moving in and out of villages, 27 of the people moving were *Kunbi* caste (the lower rank of the main agricultural caste), 14 belonged to other low caste or occupational groups (*Nahar*, Female slave, Temple servant, Potter and Washerman), and 23 belonged to higher caste groups (*Brahman*, *Maratha*, and higher occupational groups, particularly Merchant or *Vani* caste). It is also significant that of the 63, 11

were single females, and of the men, 3 were destitute and 2 recently orphaned.

26. *Dowell's Notes* p. 106.

27. *Gazetteer of Bombay City and Island* Vol. I (Bombay, 1909) p. 254. For recruitment of the *Bhandari* caste into the British navy, see *ibid* p. 232. On *Mahars* who according to Capt. Dowell were recruited for the first time into the army in the 1820s, see *Dowell's Notes* p. 377.

28. Pune Archive, English language records 'Ratnagiri Survey' (List 10 Rumal 14/4) letter no. 398 of 1852, dated 10.4.1852 para. 1. (henceforth Pune Archive, Ratnagiri Survey, Rumal 14/4).

29. *Imperial Census of 1881. Operations and Results in the Presidency of Bombay including Sind* (Bombay, 1882) Vol. II Appendix C Supplementary Occupational Table II pp. lxxvi-lxxiv, (henceforth *Census of India 1881* Bombay).

30. *Census of India 1911* Vol. VII Bombay (Bombay, 1912), Part II Table XI Pt. I pp. 157-196; *Census of India 1911* Vol. VIII Bombay Town and Island (Bombay, 1911) Parts 1 and 2.

31. India Office Library and Records, Bombay Revenue Proceedings Range 375 Vol. 22 no. 3287 dated 30.4.1846 paras. 8, 9 and 11 (henceforth BRP).

32. BRP Range 372 Vol. 45 no. 8497 dated 16.9.1838 para. 3.

33. Colonel George Wingate's Diary Vol. 2 1852 p. 75 (University of Durham Sudan Archive, Wingate Papers, Box 293) (henceforth: Wingate's Diary).

34. *Census of India 1901* Vol. X Bombay Town and Island Part IV History (Bombay, 1901) p. 98.

35. *Gazetteer of Bombay City and Island* Vol. I (Bombay, 1909) p. 162.

36. *Census of the Bombay Presidency 1872* Part II (Bombay, 1875) Appendix on the Census of 1846.

37. *Census of India 1901* Vol. X Part IV p. 112.

38. *Gazetteer of Bombay City and Island* (Bombay, 1910) Vol. II pp. 139 and 145.

39. *Gazetteer of Bombay City and Island* (Bombay, 1909) Vol. I p. 162.

40. *Census of India 1901* Vol. X Part IV pp. 120-131.

41. *Census of the Island of Bombay taken 2nd February 1864* p. 98.

42. *Census of India 1901* Vol. X Part IV pp. 120-140.

43. S. Yonekawa, 'Public Cotton Spinning Companies and their Managerial Characteristics 1870-90: a comparative study of 4 countries', *Hitotsubashi Journal of Commerce and Management*, 21,1,Dec.1986 p. 79.

44. M. D. Morris, *op.cit.* (1965) Appendix II.

45. *Census of India 1901* Vol. X Part IV p. 153.

46. In 1881, for example, 72% of emigrants from Ratnagiri district into other areas of Bombay Presidency went to Bombay City, and by 1911 this had risen to 87%, representing 14% of all those people born in Ratnagiri, (see Table 1.3). Where migrants from Ratnagiri went to other districts, their destination was probably often urban e.g. in Thana district, which in 1881 contained 1.2% of those born in Ratnagiri, and which included several growing industrial centres close to Bombay; and Poona district, the destination of 0.3% of those born in Ratnagiri, where the destination of most male migrants was probably Poona city.

Ratnagiri district itself, on the other hand, had a low urban population: in 1872 (*Census of the Bombay Presidency 1872* Vol. II Table IV pp. 5-7) only six towns in Ratnagiri had a population of over 5,000, making a total 'urban' population of 50,550 out of a total population of 1,019,136.

47. In 1881, (*Census of India 1881* Bombay, Vol. II Table XIX pp. 86-8) the sex ratio for Malvan town was 90.4, for Chiplun town 122.6, for Ratnagiri town 103.5 and for Rajapur town 100.9, at a time when the sex ratio for the district as a whole was 90.2.

48. For the basis of this calculation see M. D. Morris, *op.cit.* (1965) Appendix IV.

49. M. D. Morris, *op.cit.* (1965) Appendix II.

50. D. Mazumdar, *op.cit.* (1973) p. 478.

51. R. Newman, 'Social Factors in the Recruitment of Bombay Mill Hands', in K. N. Chaudhuri and C. J. Dewey (eds.), *Economy and Society* (Delhi, 1979).

52. *Census of India 1911* Vol. VII Part II Table XI Pt.III pp. 205-220.

53. *Census of India 1891* Vol. VII Part II Table VIII pp. 47-84.

54. *Census of India 1901* Vol. IXA Part II Table XI pp. 165-184.

55. H. and V. Joshi, *Surplus Labour and the City: a Study of Bombay* (Delhi, 1976); S. D. Puneekar and A. Golwalkar, *Rural Change in Maharashtra* (Bombay, 1973); H. Dandekar, *Men to Bombay, Women at Home* (Michigan, 1986).

56. e.g. *Selections* N.S. no. 253 (Bombay, 1892) p. 6 para. 14, and *Census of India 1901* Vol. XI Part V p. 46.

57. *Selections* N.S. no. 574 (Bombay, 1920) p. 9 and no. 528 (Bombay, 1915) pp. 6-7. The data is related to passenger traffic between ports in Ratnagiri taluka and Bombay in 1913/14, and passenger traffic between ports in Malvan taluka and Bombay in 1911/12.
58. *Deaths in Bombay: Annual Mortuary Reports for 1848-65* (Bombay, 1851-65) and *Bombay Health Officer's Report for 1st Quarter of 1872* (Bombay, 1872).
59. D. P. Saxena, *Rururban migration in India* (Bombay, 1977). H. and V. Joshi, *op.cit.* (1976). Interviews in Ratnagiri district 1973-4.
60. M. McAlpin, *Subject to Famine* (Princeton, 1983) pp. 238-40 Appendix B, on birth and death rates in the Konkan compared to other areas of Western India.
61. For examples of *Chambhar* migration from other parts of India, see J. Connell et al., *op.cit.* (1976) p. 22 for Nepal and Tamil Nadu, and R. Das Gupta, *op.cit.* (1976) for Bengal. For the *Chambhar's* work in the mills, see E. Perlman, 'Eyes without sight; Education and Mill Workers in South India 1939-76', *Indian Economic and Social History Review* 18,3 and 4, 1981.
62. BRP 1846 Range 375 Vol. 21 no. 3287 dated 30.4.1846 para. 8; and *Gazetteer* (1880) p. 171.
63. See below Chapter 4. For examples, see *Dowell's Notes*, *passim*.
64. e.g. *Dowell's Notes* p. 250, a *Naratha* complained that when he lost his hereditary holding and became a tenant at will, the other *Narathas* called him a *Kumbi*.
65. See *Census of India 1911* Vol. VII Part II Table XIII pp. 229-276 and Table XI Pt.III pp. 205-220.
66. See *Dowell's Notes* *passim*, references to *Gurav's punj*, a proportion of the crop, e.g. p.23, and p.43.
67. e.g. *Dowell's Notes* p. 186.
68. See *Dowell's Notes* *passim* e.g. p. 32 and p. 40.
69. Muslims appear to have worked on the shipping lines: *Dowell's Notes* p. 255.
70. *Census of India 1911* Vol. VII Table XI Pt.III pp. 205-220.
71. See note 61 above for the *Chambhar* caste. For other untouchables, see for example, R. Das Gupta, *op.cit.* (1976).
72. C. B. Hart, B. H. Ellis and J. B. Dunsterville, *Memo by the Commission appointed to Collect Information on the subject of Prices* (Bombay, 1864/5) Table p. 112, for wage rates.

73. *Census of India 1881* Bombay, Vol. I; the census was taken on the night of 17th February 1881. *Selections* N.S. no. 222 (Bombay 1888) p. 6 para. 17, a census of Rajapur taluka by the survey department taken during the 'fair season' was affected by emigration, since according to the survey officer the villages were 'more or less depopulated'.

74. *Selections* N.S. no. 528 (Bombay, 1915) p. 6 para. 37.

75. *Dowell's Notes* give information for many villages in Ratnagiri and Sangameshwar talukas on the practice of peasants cultivating sometimes in villages other than their own. In many cases this appears to have been a matter of convenience, cultivating land either side of the boundary with the neighbouring village. However, it does seem that on balance, there is more tendency for inhabitants of larger villages (over 400 inhabitants) to cultivate in nearby smaller villages, rather than the reverse. In tarf Sytowde, Dhamanse and Phungus, for example, in only one of the 11 villages with over 400 inhabitants in 1830 did peasants come from other villages to cultivate, while in 12 out of the 22 villages with under 400 inhabitants peasants came to cultivate from other villages nearby.

76. Had the economic importance of the district been greater, no doubt the topographical constraints could have been overcome. The Bombay, Baroda and Central India Railway was constructed along the Gulf of Cambay in the face of very similar difficulties to those which would have been faced in the Konkan, and also in competition with water transport, because of the importance of the Gujerat hinterland for cotton. See M. Vicziány, 'The Cotton Trade and the Commercial Development of Bombay 1855-75' (Ph.D. London 1975) pp. 268-273.

77. *Gazetteer* (1880) pp. 168-9. See also *Selections* no. 11 (Bombay 1852) p. 21 para. 67 on the lack of effort by government to keep the roads in repair at that date. On Rajapur taluka, see *Selections* N.S. no. 222 (Bombay, 1888) p. 5.

78. *Gazetteer of the Bombay Presidency* Vol. XB Ratnagiri and Sawantwadi (Bombay, 1913) p. 11 points out that between 1875 and 1912 there was only one important new road in the district, over the Ambha Ghat, built in 1883-4. This, the main Ratnagiri-Kolhapur road, with branches north to Chiplun and south to Rajapur, was the only good metalled road in Ratnagiri and Sangameshwar talukas in 1914 (*Selections* N.S. no. 574 (Bombay, 1920) p. 5; *Selections* N.S. no. 559 (Bombay, 1919), though there were also two short stretches of Local Board road in Sangameshwar taluka). In the 1920s, in Khed taluka there were still only two roads suitable for carts, and road transport had improved little from the 1890s, (*Selections* N.S. no. 627 (Bombay, 1929) p. 2.)

79. K. M. Chaudhuri, *Trade and Civilisation in the Indian Ocean* (Cambridge, 1985) p. 24 on the Konkan as an area for recruitment of professional sailors.

80. M. F. J. Wilson, *The Native Craft* (Bombay, 1909) pp. 55,57 and 96, describes the different types of craft found in Bombay and their origins e.g. the *pattinar* or *phatamar* was the vessel used for the coastal trade, such as timber from Malabar to Bombay. These ships were built in Ratnagiri district at Jaigad, Ratnagiri and Malvan, and further south in Calicut and Cochin. Some of the 'jolly boats' employed to carry stores and passengers between ship and shore in Bombay harbour were also built in Ratnagiri and neighbouring Jinjira.
81. M. F. J. Wilson, *op.cit.* (1909) p. 60: crews on the *phatamaris* were paid by the trip, and also got a free ration. *Dowell's Notes* p. 356: *Kharvis* (one of the fishing castes) were paid cash for the trip. Col. George Wingate's Diary (Durham, Wingate Collection) Vol. 2 1852 p. 71: profits from each trip divided into shares among the crew at the end.
82. *Dowell's Notes* pp. 255 and 356.
83. BRP Range 372 Vol. 45 no. 8497 dated 16.9.1838 para. 3.
84. *Gazetteer* (1880) Ch.VI p. 172. *Selections* N.S. no. 627 (Bombay, 1929) p. 2.
85. *Selections* N.S. no. 5744 (Bombay, 1920) p. 9 and no. 528 (Bombay, 1915) pp. 6-7.
86. In Sangameshwar taluka, population in 20 villages on navigable rivers rose by 74% from 1830-1911, while in 33 villages not on the river, population rose by 193%; see Table 1.8B.
87. *Gazetteer of Bombay City and Island* (Bombay, 1909) Vol. I pp. 231-2.
88. M. B. Padki, 'Outmigration from a Konkani Village to Bombay', *Artha Vijnana*, 6, 1954.
89. *Selections* N.S. no. 559 (Bombay, 1919) p. 7. Interviews in Sangameshwar taluka, 1974.
90. *Selections* N.S. no. 627 (Bombay, 1929) p. 9.
91. *Selections* N.S. no. 528 (Bombay, 1915) p. 6.
92. Settlement Records for Nevre, Ratnagiri Taluka, Appendix D 1870.
93. This is still common practice among migrants to Bombay; see H. Dandekar *op.cit.* (1986).
94. On dock labourers, see R. P. Cholia, *Dock Labourers in Bombay* (Bombay, 1941); on sweepers, see *Bombay Municipality Health Officer's Report* 1866 letter no. 192 of 1867 dated 25.1.1867 p. 7.
95. R. P. Cholia, *op.cit.* (1941) p. 59.
96. R. Newman, *op.cit.* (1979); D. Koolman *op.cit.* (1983) p.140.

97. In 1879 there were 3,400 *Marathas* in Ratnagiri district in military service, and 4,045 pensioners, and 394 *Kunbis* in military service, and 773 pensioners: *Gazetteer* (1880) p. 105. The number of *Maratha/Kunbi* caste males in Ratnagiri district in 1881 was 229,585.

98. Wingate's Diary Vol. 2 (1850) p. 76; at Verrul Village, he was informed that 20 people from the village had gone permanently to Bombay and five went annually; p. 75 the *Deshpande* of Lanje informed Wingate that some cultivators from every village in the *taluka* Rajapur) went to Bombay every October and returned to till the land at the beginning of the monsoon.

CHAPTER 2

THE DEMAND FOR LABOUR

I Introduction

As has been shown in Chapter I, there were considerable variations in the pattern of labour migration from Ratnagiri, over time, between regions and between communities. It has been argued that although transport and information were clearly preconditions for emigration, and although their availability could account for some variation in the pattern of migration, such factors cannot by themselves provide the fundamental explanation of the growth of emigration from Ratnagiri. A similar argument can be advanced when considering the role of exogenous demand for labour in explaining emigration. Clearly, without such demand, in a location accessible to Ratnagiri's workers, no long term pattern of labour emigration would have developed. Variations in the demand for labour in Bombay, the main destination of Ratnagiri migrants, might, therefore, be able to explain variations in the rates of emigration from Ratnagiri over the nineteenth and twentieth centuries. Demand for particular skills in Bombay might also be able to explain differential rates of migration between castes and communities, such as the high rate of *Chambhar* emigration from the late nineteenth century. It is also possible that the pattern of seasonal migration from the district could be related to seasonal demands for labour in Bombay and Ratnagiri. Moreover, rates of female emigration could also be partly explained by the demand for women's labour in Bombay city.

However, exogenous demand for labour cannot in itself explain the high rates of emigration from Ratnagiri district, as compared to other areas of Western India with equal access to the labour markets (see Table 1.2), nor can it provide a convincing explanation of the distinctive patterns of migration from the district. In this chapter I

examine in turn the impact of demand for labour in Bombay on the rates of emigration from Ratnagiri, on the seasonal pattern of emigration, on the sex ratio of the migrant stream and on the differing patterns of emigration from the northern and southern *talukas* of Ratnagiri. In conclusion, it is argued that the flow of labour from Ratnagiri was created not so much by the greater demand for labour in Bombay, as by institutional constraints on the market for labour in agriculture in Ratnagiri, which kept wages artificially low; it is further argued that the limited demand for labour in the non-agricultural sector within the district ensured that labour from the agricultural sector looked to Bombay for employment. It is therefore suggested that for a more fundamental explanation of emigration from the district, it is necessary to examine closely the structure of the agrarian economy and society in Ratnagiri.

II Rates of migration and demand for labour in Bombay.

Though migrants from Ratnagiri went to a number of destinations, there is little direct statistical data on demand for labour in any destination except Bombay. However, since migration was predominantly to Bombay (see Table 1.3), it is possible to examine the extent of demand for labour outside the district by looking at Bombay city alone.

Demand for labour in Bombay city cannot be properly quantified in the nineteenth and early twentieth centuries since there is little employment data available except for the cotton mills during this period. The Revenue Commissioner in 1838 suggested that there was '*unbounded labour demand*' in Bombay, but by 1850 Col. Wingate noted that the Bombay market was '*over-stocked with labourers*' and many had had to return home to Ratnagiri empty handed.² However, many accounts of the development of the city indicate that there was a rapid rise in employment in the city in the 1850s and 60s, associated particularly with the construction boom.³ Employment dropped with the crash, in 1865, but this was only a temporary depression, affecting mainly the construction industry.⁴ Data on employment in the cotton mills shows

a steady rise in average daily employment from 6,557 in 1865 to 29,417 in 1880, reaching 72,914 by 1900 and 140,208 by 1920.⁵

Since employment in the mills was the largest single occupation of workers from Ratnagiri (see Table 1.5), one might expect to find a close relationship between the growth of employment in the mills and rates of migration from the district. This does not appear to be the case, however (see Table 2.1). The greatest increase in the rates of migration from Ratnagiri to Bombay occurred from 1872-1881 and from 1901-1911; the most rapid increase in mill employment also occurred between 1872 and 1881, when many new mills were opening up, but after the first decade of the twentieth century the increase in mill employment was relatively slow, and mill employment increased most rapidly from 1911-21, especially during and just after World War I, at a time when migration from Ratnagiri was less rapid. Data on mill employment for this period are rather suspect,⁶ and of course the migration data could be misleading, being only available at ten year intervals. However, the data do suggest that broader patterns of demand for labour in the city, along with factors affecting the supply of labour in Ratnagiri, had a greater influence on rates of growth of migration than the mill industry alone.

Data on movements of wages in Bombay could also give some indication of demand for labour in the city, since rising real wages could indicate a rising demand for labour which might not be easily discerned in the employment statistics. Most of the data on wages in Bombay before 1921 is for the cotton mills. There are very substantial flaws, however, in the wage data available for this period, and there are serious doubts as to whether they provide an accurate picture of short term movements in nominal wages, as opposed to long term trends.⁷ Nominal wages in the cotton mills apparently remained very steady over the period 1882-1906, rising rapidly from 1907 until the early 1920s, when they again stabilised, and then began to fall.⁸ There is some indication that wages in Bombay generally may also have risen rapidly during the 1860s and 1870s.⁹ These movements in wages, however, appear to be related closely to movements in prices, and were not necessarily accompanied by changes in real wages. It is difficult to construct a satisfactory index of real wages during this period, as

wage data before the 1920s are of a very generalised nature, and rarely broken down into either sex or detailed occupational categories. On the other hand, the limited data on consumption makes it clear that, not surprisingly, there were very varied patterns of consumption between classes and castes. While estimates of grain consumption are similar for all groups (1½-2lbs per adult male per day),¹⁰ wealthier families consumed more rice relative to other grains, and the poorest quality millets were consumed by the poor.¹¹ Consumption of pulses probably varied less, but other protein consumption varied greatly according to caste, class and region. The source of protein for the poor was mainly pulses. Wealthier non-Hindus and lower caste Hindus would eat some meat, and perhaps more importantly in the coastal areas, fish. Higher Hindu castes had a high consumption of milk and *ghee*.¹² The lack of uniformity in diet makes it difficult to construct a valid 'basket of goods' for any cost of living index, especially as food was by far the largest item in family budgets: clothing appears to have accounted for 14-20% of family budgets, depending on wealth (the wealthier paying more), and house rents considerably less.¹³ For this reason, it has seemed advisable to construct an index of wages related to one of the main grains consumed, rather than attempt a proper real wage index, and in Table 2.2, therefore, an index has been constructed relating wages to rice, the best documented food grain commonly consumed in Ratnagiri and Bombay.

Data on prices and wages for any period before the 1880s are very patchy, but Table 2.2 suggests that real wages were rising in Bombay in the 1850s, but fell in the 1860s during a period of rapid inflation; real wages for skilled and unskilled labour indeed appear likely to have remained fairly static between the 1870s and 1916. Table 2.2 suggests that real wages for weavers in the mills probably fell slightly in the 1880s, and rose from 1894-1901, falling to closer to the 1880s level after 1901. From these data, it would appear that real wages were not very sensitive to changes in demand. The rice/wage index falls in the 1880s when many new mills were opening and demand for labour presumably increasing, and though the index falls in 1900 (a year of problems and lay-offs in the industry), it also falls in 1897, the year of the plague in Bombay and acute labour shortages.

Indeed, trends in wages during the period 1901-1907 give no indication of the fluctuating fortunes of the cotton industry at this period.¹⁴ This may indicate, as M. D. Morris suggests, that labour shortages were not as acute as the mill-owners suggested; they may, however, merely reflect the inadequacy of the data.¹⁵ Moreover, given the multitude of jobs in the mills, all at different rates of pay, and the many different rates of pay within a single occupation within the mills, as for example for weavers, only a carefully constructed weighted average could accurately indicate changes in real wages over time.

More significant for migration than the actual level of real wages in Bombay, is the relative level of real wages in Ratnagiri compared with those in Bombay. Here the inadequacies of the wage data may present less of a problem, especially if one accepts the Todaro hypothesis that migrants may be attracted more by the higher rates of pay achievable than by the average and lower rates of pay which they might more realistically expect.¹⁶ The relative levels of nominal wages between Bombay and Ratnagiri remained very similar throughout the period. In the 1830s wages in Bombay were approximately double those in Ratnagiri and elsewhere for comparable jobs, and over 1900-1930 wage rates in Bombay were between 2 and 2½ times the rate in the Konkan, while in 1863 nominal wages in Bombay were between 2 and 3 times greater than in the Konkan.¹⁷ Where real wages are concerned, Table 2.2 suggests that, while real wages for unskilled labour were probably higher in Bombay than Ratnagiri from the 1830s, wages for skilled labour were very similar until the 1860s. In the 1860s the rice/wage index suggests that real wages dropped in both Ratnagiri and Bombay during a period of rapid inflation, but dropped more in Ratnagiri for both skilled and unskilled workers than in Bombay. This was during the cotton boom, when employment was expanding rapidly in the city, and migration rates from Ratnagiri were high. In the 1870s demand for labour in the city dropped, but unfortunately there is little wage data for the city at this period; in Ratnagiri, however, real wages do appear to have dropped in the 1870s. In the 1880s, the rice/wage index suggests that real wages in Ratnagiri may have been at a peak, and equal to real wages in Bombay city for both skilled and

unskilled. In the 1890s, however, the index suggests that real wages in Ratnagiri had dropped while they remained steady in Bombay through the first decade of the twentieth century. By 1912 the relationship between rice/wage indices for Ratnagiri and Bombay city was apparently similar to that in 1863: in 1912 the index for unskilled field labour in Bombay was 50% higher than that for Ratnagiri, while in 1863 the difference was 20-30%; the index for skilled labour was 22-71% higher in Bombay than Ratnagiri in 1863, and 62-78% higher in 1912. The rice/wage index for weavers in the Manokjee Petit mill (a skill which could be acquired easily and to which many unskilled migrants aspired) was 25-66% higher than the index for an unskilled worker in Ratnagiri in 1882, when wages in Ratnagiri appear to have been at a peak, while by 1912 the index for average mill wages was 97-107% higher than the index for field labourers in Ratnagiri.

One conclusion which could be drawn from this data is that demand for unskilled labour was higher in Bombay throughout the nineteenth and early twentieth centuries than it was in Ratnagiri. However, real wages can only reflect demand for labour if there is a free market in labour. It is possible to argue that the low wages in Ratnagiri district relative to Bombay reflect institutional constraints in the area, which prevented labour fetching its market price. This appears to have been the case in nineteenth and early twentieth century Ratnagiri. Reports from Ratnagiri during the nineteenth century make it clear that the rights of the *khoti* landlords to labour service from the cultivators, and the practice of slavery and debt bondage, severely restricted the operation of a free labour market during this period. Labour service was confined to the lower castes and customarily was supposed to consist of two to four days a month, per household, for field labour, and one day's ploughing when required.¹⁸ The peasants were also required to carry the *khot* and his family in a litter when they wished to travel to other villages (between one and twelve times a year), and to carry the grain to be paid in tax to the government depot after the harvest (though in some cases they paid an extra cash tax for this instead).¹⁹ However, it was possible for the *khot* to exceed this rate of forced labour, and in some cases *khots* levied a great deal more. For example, in Sirgaon village, in Anjanvel taluka in

1845, the cultivators complained that the *khot* levied between six and fifteen days a month in labour service. The *khot* himself admitted to five, and agreed that he often called the peasants to work for him for odd extra hours without pay or food and took two days ploughing a month instead of the customary one. This case may have been exceptional, but complaints were difficult to make. The *khot* in this case attempted to stop the peasants petitioning the authorities by locking them all in a house and bribing or threatening them to drop their complaint.²⁰ Even at the customary rate of labour service the levy, though probably not so unpopular in the winter months, was a serious burden during the busy ploughing, transplanting and harvesting season. Labour service was not usually paid, but sometimes some pay was given at lower than the ordinary rates for an agricultural labourer,²¹ and food was often given to the workers.²²

Besides labour service there were other forms of unfree labour. Many agricultural labourers on long contracts were in fact debt bonded labourers, working off a loan usually contracted for marriage expenses.²³ There were also slaves, who worked without pay for their masters, who in turn fed and housed them and their families.²⁴ However, though these forms of unfree labour were common in the earlier nineteenth century, they were becoming less important in the last decades of the nineteenth century. Slavery did not officially exist, and it seems likely that many of the slaves were later classified as debt bonded servants. Forced labour was also abolished for many cultivators in 1880, when the Khoti Settlement Act stipulated that only tenants at will were obliged to perform labour service for the *khots*.²⁵ Until this point, however, it is clear that labour service played a major part in supplying the *khots* with labour.

In terms of the gains to the cultivators, working as a day labourer was not much better remunerated than labour service, since day labourers also got food, but pay was extremely low (one to two annas a day for most of the nineteenth century).²⁶ From the point of view of the landlord, employing debt bonded labourers and slaves who had to be supported for the entire year must have been more expensive than simply hiring day labourers when required, especially as coerced labour is generally less efficient.²⁷ The prevalence of the use of

forced and debt bonded labour, therefore, suggests that the problem in the early nineteenth century was labour shortage, particularly at peak transplanting and harvesting seasons, and that the *khots* attempted to overcome this with the use of unfree labour.²⁸ The practice of labour exchange and communal agricultural activities point to the same problem. It was the practice among some cultivators in the 1820s to organise a *sapud*, where fellow peasants came to help with the weeding in return for food and drink.²⁹ Practices such as these in peasant agriculture generally die out when a plentiful supply of cheap labour becomes available.³⁰

It is argued that the widespread use of unfree labour by the *khots* was designed to provide cheap labour at times of labour shortage in Ratnagiri. If this were the case, one would expect real wages in agriculture to rise in the 1880s, after the abolition of labour service for the majority of tenants in the Khoti Settlement Act. The rice/wage indices in Table 2.2 suggest that real wages for unskilled labour in Ratnagiri in the 1880s were substantially higher than in the 1860s and before, and perhaps more significantly, approached real wages in Bombay more closely than in earlier periods. This would seem to provide support for the hypothesis that labour service kept down real wages in Ratnagiri in the earlier nineteenth century. However, there are many other factors influencing wage levels at this time which make it difficult to isolate the impact of the abolition of labour service. Labour demand in Bombay was particularly high in the 1880s, and the population of Ratnagiri actually dropped between 1872 and 1881 as a result of emigration (see Table 1.3). In the 1890s as population in Ratnagiri rose again, Table 2.2 suggests that real wages had already started to decline, both absolutely and relative to wages in Bombay. On the other hand, there is evidence to suggest that some cultivators were refusing to do labour service, particularly in the northern *talukas* from as early as 1850,³¹ and the impact of the abolition in 1880 might therefore not have been as great as one would expect.

Though it is not possible to provide conclusive evidence of the impact of labour service on agricultural wages in the nineteenth century, it is clear that there was widespread use of unfree labour in

Ratnagiri district during the nineteenth century, and that both debt bonded labour, and the labour service for the poorer tenants, continued into the twentieth century. In these circumstances, it is not possible to argue that the higher real wages in Bombay necessarily reflect higher demand for labour in Bombay than in Ratnagiri. Rather, they reflect the political and economic power of the *khots*, who were able to compel the cultivators in their villages to perform unpaid labour service, thus keeping wages low and restricting the cultivators' ability to work in Bombay, since most cultivators were reluctant to abandon the village completely. British officers believed that *khots* would try to prevent cultivators working in Bombay since they would then be unable to fulfill their labour obligations.³² Though some cultivators from the mid nineteenth century seem to have defied the *khots* and refused to perform labour services, the *khots* were still able to compel them through the courts to pay a cash commutation,³³ and the evidence suggests that until the 1880s most cultivators still performed labour services in the traditional way. In these circumstances, a comparison of real wages in Ratnagiri and Bombay cannot be used effectively as a reliable indication of labour demand, and though the higher level of real wages in Bombay was probably a major cause of migration from Ratnagiri, it is not necessarily the case that there was also any significant difference in demand for labour in Bombay and Ratnagiri.

III Seasonality of demand for labour.

The seasonal migration of labour from Ratnagiri to Bombay during the slack agricultural season was an important part of the overall pattern of migration from Ratnagiri to Bombay in the nineteenth and early twentieth centuries (see Chapter 1). The purpose of this section is to examine the extent to which seasonal variations in demand for labour, both in Ratnagiri and in Bombay, determined this seasonal pattern of migration.

1) Seasonality of labour demand in Bombay.

For most industries in Bombay there are no regular statistics on employment. However, in some industries there was clearly a drop in demand for labour in the monsoon months.³⁴ There were few all-weather ports on the west coast of India before the mid twentieth century, and consequently the coastal shipping lines, and smaller locally owned passenger and cargo boats, stopped during the monsoon months. There would have been little work available, therefore, on the boats or in the docks. It is significant that in the 1920s many dock workers in Bombay still returned home regularly to cultivate.³⁵ Shipbuilding may also have been affected by the monsoon conditions. The construction industry was also seasonal, the heavy rain during the monsoon making work often impossible.³⁶ Service industries were likely to have been less affected, since domestic servants, street-cleaners, rickshaw-wallahs, and shop-keepers were still needed by the resident population of the city, though business may have been less brisk than in the dry season. The statistics on seasonal variations in deaths in Bombay in 1849-64 (see Table 2.3) do indeed suggest that there was more seasonal absence from the city during the monsoon among labourers and boatmen than among craftsmen and professionals, since there was a lower than average percentage of deaths recorded in August-October for labourers and boatmen as compared other occupations.³⁷

In the case of the cotton-mills however, the situation is less clear. Contemporary observers believed that large numbers of mill workers returned to the rural areas in the monsoon period.³⁸ M. D. Morris has attacked this view by arguing that there is little evidence of seasonality in production or employment in the cotton mills, and that evidence that employees returned home to the rural areas on a regular basis is insubstantial.³⁹ He argues for example, that monthly production data and absenteeism figures show no seasonal variations, and the Factory Enquiry Reports show that while many mill workers had land and houses in the rural areas and visited regularly, few went home annually to cultivate. However, the evidence on these points is in many respects ambiguous. For example, though the mill workers interviewed in the Factory Enquiry Reports appear to have returned home only for a holiday, there is likely to have been some bias in the

selection of workers in these reports in favour of the more permanent workers in the mills. Nonetheless, of the Bombay mill workers interviewed for the 1890 Factory Report, 28% had land in their villages and went home for more than just a short holiday.⁴⁰ It is also possible that there was in fact some seasonal variation in demand for labour in the mills. There appears to have been a peak of demand in the spring and October-December.⁴¹ However, there appears to be no regular pattern of seasonal fluctuation in the 'production' data, but these may be flawed.⁴² It is difficult to argue a case on the employment statistics, since employment figures for the late nineteenth and early twentieth century were provided only on an annual basis, and were also probably compiled from the muster roll, which indicated the number of workers needed for full production, not the numbers actually employed at any given moment, and was therefore unlikely to reflect seasonal changes in production and employment.⁴³ Monthly data on absenteeism does not begin until 1922. M. D. Morris has been unable to find any seasonal increases in absenteeism in this data, but since absenteeism from sickness was not distinguished from absenteeism for other reasons, and since short term absences were not recorded if a worker sent his own substitute, while lay-offs and possibly strikes were included as absenteeism, few conclusions can be drawn from this data.⁴⁴ It is therefore difficult to argue conclusively that there was no seasonality of demand or production in the mills, but also difficult to prove that there was.

If there was a seasonal peak of demand for labour in Bombay in the winter months, this would dove-tail neatly with the peak period of labour demand in Ratnagiri, which was in the monsoon and the harvest period immediately following. Data from the shipping firms suggests that large numbers of passengers travelled out from Bombay to Ratnagiri in May, and returned to Bombay in November/December. M. D. Morris argues that these data do not prove a substantial seasonal movement of labour, since many passengers were clearly returning to Bombay in April as well as going out to Ratnagiri, and suggests that regular annual visits to Ratnagiri from Bombay were largely a middle class phenomenon.⁴⁵ However, a breakdown of the data according to the classes on the boats (see Table 2.4) shows that while

the second class passengers (with presumably the better paid jobs in Bombay) did indeed travel mainly to Ratnagiri in February/March and back to Bombay in April/May, in 1913 and 1914 they represented only 25% of passengers travelling from Ratnagiri *taluka* to Bombay and 31% of passengers travelling from Bombay to Ratnagiri, and the majority of passengers (74% travelling from Ratnagiri to Bombay and 68% returning) were travelling third class; these were presumably the working class migrants, who were more likely to be seasonal workers, and were apparently travelling to Bombay in November/December and back to Ratnagiri in April/May. However, the figures must be treated with some caution. Evidence from the 1920s suggests that some passengers may have been making several journeys a year. In Kolaba (bordering Ratnagiri district to the north) in the 1920s workers returned from Bombay to their villages in mid June for one or two weeks for ploughing, again at transplanting in July, for the *Ganpatti* holiday to supervise the crop, and in October/November for threshing and Diwali.⁴⁶ The Settlement Officer in Rajapur (in the south of Ratnagiri district) also believed that the passengers on the steamers made several journeys a year between Rajapur *taluka* and Bombay.⁴⁷

ii) Seasonality of labour demand in Ratnagiri

Though the data on seasonality of demand for labour in Bombay are ambiguous, as far as agriculture is concerned there is considerable evidence of seasonality of demand. The character of the monsoon in the Konkan meant that the agricultural season was shorter in Ratnagiri than in parts of the neighbouring Southern Deccan such as Dharwar and the eastern parts of Poona district, which received rain from both the South West monsoon (June-October) and from the North East monsoon (March to May), while Ratnagiri only received rain from the South West, and rarely got the late rain in October and November which occurred in parts of the Deccan. Moreover, the poorer quality of the soil in Ratnagiri, which did not retain water well, discouraged the planting of *rabi* crops, which were sown in August/September and harvested January/March in many parts of the Deccan, using irrigation for watering.⁴⁸ Furthermore, irrigation was not much developed in Ratnagiri (see Chapter 5). The division of the harvest between *kharif*

(sown in June, harvested in October/November) and *rabi* in the collectorates of Bombay Presidency in 1889/90 shows clearly the different lengths of the agricultural seasons. As can be seen from Table 2.5, Ratnagiri had the lowest proportion of *rabi* cultivation in Bombay Presidency, and the highest concentration of cultivation in one season (the *kharif*).

Cultivation was thus confined to a short season in Ratnagiri, extended only a little by double cropping in the nineteenth century and by garden crops such as coconuts and mangoes⁴⁹ and there were few agricultural operations which could be performed outside the main cultivating season. 'Garden' cultivation of fruits and nut trees required irrigation in the dry season; for example, coconuts on poor sandy soil would need one man for every 50 trees, employed constantly watering them by hand until they began bearing fruit, about 12 years after planting, though coconuts in better soil and in irrigated gardens would need less.⁵⁰ Other garden crops also needed constant, though less intensive, attention to their irrigation, and there was also the work involved in harvesting the crop. In the case of mangoes, one of the main exports of Ratnagiri by the twentieth century, the harvesting season was in April and the double cropped rice and pulses were also harvested in the spring. Coconuts had a long bearing season and it was also possible to tap the trees for nine months of the year for the sap used for making toddy.⁵¹ Outside the small areas of double cropped and garden land, however, there was little demand for labour between the harvest and the monsoon. Cattle needed tending and there was general labouring work such as repairing the embankments round the rice fields, and also grass could be cut and sold for fodder.⁵² The only major work which could be done in the fields, however, before the monsoon softened up the ground, was cutting branches of trees and brushwood (*rab*) and burning them on the fields to fertilise them. This was done in the dry season and used relatively little labour. In contrast there was a high demand for labour in the monsoon season. Labour was particularly in demand at transplanting time, since the whole operation had to be carried out within a week. This affected not only the rice growing areas of Ratnagiri, but also the hill areas, since transplanting was not only used for rice but for

Calendar of agricultural work in Ratnagiri district

Month	Season	<u>Work to be performed for cultivating:</u>	
		<u>Kharif grain crops</u>	<u>Garden and rabi crops</u>
December	Dry		Irrigation of garden and double cropped land.
January	Dry	Embankments repaired	Harvest sugar cane
February	Dry	Grass cut and sold	Plant sugar cane
		Rab manure cut and	Harvest double
March	Dry	burnt on fields.	cropped rice, pulses hemp and chillies
April	Dry		Mango harvest.
May	Dry		
	Occasional rain	Seed beds prepared.	
June	Monsoon	Seed beds sown	
		Fields ploughed.	
		Hill crops sown in fields.	
July	Monsoon	Transplanting of rice and nagli. Sow pulses and hemp.	
August	Monsoon	Finishing transplanting early August.	
September	Monsoon	Harvest early crops end of September	Sow double cropped
October	Monsoon	Harvest: reaping, threshing, stacking, winnowing, gleaning.	rice and nagli in seed beds. Plough double crop land
November	Dry	Harvest late crops.	Sow double crop
	Occasional rain		pulses, chillies and hemp. Transplant rice and nagli.

other popular grain crops, notably *nagli* and *vari*;⁵³ and labour was also needed on a large scale for all grain crops at the harvest in October/November.

The fluctuating labour requirements in agriculture through the different seasons is demonstrated by estimates made in Ratnagiri in 1839 and 1873. In 1839 a *mamlatdar* in Anjanvel *taluka* estimated that for cultivating a *bigha* of *warkas* (dry crop hill) land, the total wage bill would be 2 annas for hiring labourers to burn brushwood on the fields, 9 annas for hiring labourers to clear the land for cultivation, but 34 annas to hire labour for transplanting, weeding, reaping and threshing and 1 rupee 8 annas for hiring ploughmen. Similarly in 1873, the *mamlatdar* of Chiplun estimated that a *bigha* of *warkas* crop in level hill land needed ten men to burn the manure on the soil, at a cost of 1 rupee 9 annas, while the cost of hiring labour for the main agricultural season would be 1 rupee 7 annas 8 paise for ploughing, 5 rupees 9 annas for weeding and transplanting, and 4 rupees 8 annas for reaping, stacking and threshing.⁵⁴

The evidence does suggest, therefore that there was some reduction in demand in Bombay in the monsoon, and a considerable increase in demand in agriculture in Ratnagiri, and that this was a contributory factor in establishing the pattern of seasonal migration between Ratnagiri and Bombay. It is not possible to say yet whether the demand for labour in Ratnagiri in the monsoon actually took away people whose labour was needed in Bombay in those same months, and led to labour shortages in the city, though the author of the Bombay City Gazetteer believed that it did.⁵⁵ On the other hand, the evidence from Ratnagiri suggests that while demand for labour in Bombay may have raised wages in the district in general, it did not have a seasonal impact on wages by raising wages in Ratnagiri in the dry season when the largest outflow of male labour occurred. Though much of the work available in the winter months was done by women, work done in the winter months by men (cutting and spreading *rab* manure) appears, from the sketchy evidence available, to have been paid at either slightly less, or equal to, the rate for field labour in the summer months.⁵⁶

IV Demand for women's labour

Though the pattern of seasonal migration partly reflects the seasonality of demand for labour in Bombay and Ratnagiri, the development of a pattern of predominantly male seasonal and circular migration such as is found in Ratnagiri must also reflect the work opportunities for women (and older children) in the city and the rural area. Where well paid work was available for women in the city the whole family was likely to migrate, and were thus more likely to sever their ties with the rural areas. Where work was only available for women in the rural areas, the men were likely to migrate only seasonally, or for a period of years, and leave their family behind in the village.

The particular pattern of migration which developed in Ratnagiri was of male migration with some young female migration, possibly before marriage or children. As has been pointed out in Chapter 1, there were three patterns of family migration discernable. Firstly, in higher castes and better paid occupations the women migrated with the men but did not work outside the home. Secondly, in the lowest castes women were most prone to migrate for paid employment; while thirdly, in the middle ranking agricultural castes few women migrated though those that did often sought paid work in the city. This suggests several possible explanations. Either employers were not willing to employ women in Bombay; or women could earn more in Ratnagiri than in Bombay; or thirdly, religious and cultural sanctions operated against women working outside the home.

It has been suggested that employers were reluctant to employ women in the mills in Bombay because of the restrictions placed on women's work by the Factory Acts from 1891, in particular restrictions on women working at night.⁵⁷ This seems unlikely however, since the rate of women's employment was little changed by the passing of the Act; the proportion of women employed in the Bombay mills actually increased in the 1890s, with women rising to 26% of the work force, and the numbers did not drop until after 1900.⁵⁸ It could also be said that the Maternity Benefit Act discouraged employers from taking on women, though the numbers of women receiving benefits were small,

especially after the revision of the Act in 1933.⁵⁹ It seems more likely, however, as R. Kumar has suggested, that the drop in the employment of women in the 1930s was related to the changing technology introduced in the winding departments in the late 1920s, particularly after the 1928 strike, since the winding departments were staffed by women, and many reeling departments were shut down as a result of the new technology. Other women's jobs also disappeared through mechanisation: waste pickers, doffers, cheese winders, creelers and washers, hand-folders, and machine tenters and lap carriers in the carding room.⁶⁰

This does not explain, however, why more women were not working in the mills in the earlier period. E. Boserup has suggested that the explanation lies with cultural and religious prejudices in India against women performing any work other than domestic work within the home.⁶¹ However, an examination of women's work in Ratnagiri suggests that this may not be a valid argument.

Firstly, it is clear that in nineteenth century Ratnagiri, women do perform agricultural work on the family farm. Data on occupations in the censuses are generally felt to be unreliable, particularly where categorisation of work is concerned, and in the censuses before 1901 there is some confusion as to the extent to which dependents were entered under the occupation of the main wage earner in the family. In 1891, this was definitely the case,⁶² which makes it impossible to use the data to assess female employment, and this was probably the system used also in 1872. In 1881, however, there was an attempt to distinguish between actual workers and dependents, which apparently ^Q showed that 57% of the female population was 'unoccupied'. Of those who were 'occupied', 36,013 were classified as 'cultivating tenants', and 101,681 as 'cultivating landlords'. It is difficult to tell from this how far these women were participating in agricultural operations, and to what extent this indicates female household heads. However, the numbers of female cultivators here relative to males is much higher than in the neighbouring Deccan, since 45% of cultivating landholders in Ratnagiri were female in 1881 as opposed to 33% in Satara, and 46% of tenants were female in Ratnagiri as opposed to 27% in Satara).⁶³ This does suggest that women were working in

agriculture within the family in Ratnagiri. Though the division of cultivators into landlords, tenants, rent receivers and payers changed from one census to another, the proportion of female cultivators remained fairly similar though showing a tendency to increase, as would be expected with growing male migration, from 44% of cultivators in 1881 to 49% in 1921.⁶⁴

If women were working within the family in agriculture, to what extent were they working at home in other occupations? Data from the 1881, 1901, 1911 and 1921 censuses suggest that women did participate- but to a lesser extent than in agriculture- in other occupations which were probably carried out within the home or within the family group (see Table 2.6). In 1921 women were most likely, after farming, to be working in the home as cotton spinners and to a lesser extent weavers, or as potters, an occupation carried out by the *Kumbhar* caste in their own homes or their quarter of their village. Though their numbers were small, nearly half the 'washermen' in the district were women, and this work was carried out from home.

While women participated in agriculture on the family farm, and in domestically based crafts and trades, there is also evidence that they were substantially involved in work outside the home. From 1881 to 1921 the majority of casual agricultural labourers in Ratnagiri were women, though the farm servants hired on a yearly basis were mainly men. This was also the case in neighbouring districts (e.g. Satara and Kolaba), but the percentage of women field labourers was lower there than in Ratnagiri.⁶⁵ They would have been used mainly in transplanting, weeding, reaping and threshing, and also in winter tasks such as cutting grass and carrying it to market. Probably, however, much women's agricultural labour was in their own village, in the company of other family members. Many women also worked outside the home as domestic servants for higher caste families, probably also within the village; and a large number of women were involved in trade. Though some would have been helping out in the family shop, the 1881 census suggests that many of the women engaged in trade were fish sellers, who would be travelling round to village markets selling dried fish.

This does suggest, therefore, that there was little prejudice against women working outside their homes in agriculture, or domestic service, within Ratnagiri district. It also appears to have been acceptable for women to take part in trade, and some craft occupations. However, in other non-agricultural occupations there was a notably low proportion of women. Relatively few women worked as goldsmiths, boatmen, bullock cart drivers, tanners, carpenters, metal workers, toddy drawers or barbers, even though some of these occupations must have been carried out in the home, or within a family group. It appears that women did not take part in very heavy work, (e.g. metal work or tanning or working as a cart-driver or boatman), or highly skilled work (e.g. goldsmith).

This sexual division of labour in the rural area (which of course cannot be described as 'traditional' in that it already reflects society's adaptation to emigration), raises a number of questions as to the causes of the sexual division of labour in Bombay city, and rates of female work participation. In the city in 1911 the highest proportion of female to male workers was among sweepers, where numbers were nearly equal. After this, the highest proportion of women to men was found in the mills, and then among labourers. There were surprisingly few women involved in trade, or in domestic service in the city.⁶⁶ In the mills women were also concentrated in particular departments. It is significant that while in domestic cloth production, women were the spinners and men the weavers (see Table 2.6), in the factory context women were largely excluded from spinning as well as weaving, a pattern which could also be observed in early British industrialisation.⁶⁷ Instead they were mainly to be found in the least skilled and lowest paid jobs, in the winding and reeling departments which were exclusively staffed by women.⁶⁸ Indeed, in general women in the city were far less likely to be working in skilled jobs than women in the rural areas, and also less likely to be working in domestic service and trades which involved working away from home.

Since there appears to have been little prejudice against women working outside the home in the rural area, the pattern of women's work in the city was probably determined by other considerations than these cultural and religious sanctions. Firstly it is possible that, as

was the case in Britain, male workers attempted to exclude women from the higher paid jobs, such as mule spinning in the mills. In Britain in the mid nineteenth century this pressure was organised through the trade unions, but in nineteenth century Bombay, in the absence of effectively organised trade unions the jobbers, who organised the supply of labour in the mills and some other areas, could have played a similar role. By the 1920s there was a clear segregation of gangs, with female gangs in the mills headed by female jobbers (*naikins*) and engaged in the less skilled and lower paid jobs, but whether this existed from the beginning of the industry, and whether it was a result of male pressure, it is difficult to determine.⁶⁹ Secondly, however, it is possible that women were discouraged from continuing in certain occupations which they might have followed in the rural areas because the urban situation made it less practical for them to combine work with their domestic tasks and care of the children. The lower participation of women in trade and craft occupations for example, could reflect the separation of home and workplace in the city. In the mills, similar problems of the distance of the mills from home, combined with the long hours, made working there difficult for many women. Most of the women in the mills were probably married: in 1921 75% of women in Bombay aged 15-20 were married⁷⁰ and their domestic duties included not only caring for their young children, (female migrants from Ratnagiri had 0.7 children per woman in 1911)⁷¹ and sometimes for aged parents, but also looking after male members of the extended family in the city.⁷² Women in many cases appear to have worked shorter hours than the men, arriving late and leaving early because they had to cook for the men in the *chawls*.⁷³

The Factory Report of 1890 provides a number of individual examples of the arduous lives of female mill workers. Doorpathi, for example, a 35 year old widowed *Naratha* from Ratnagiri, who had worked for 13 years in the mill, lived with her mother, father and widowed sister in Bombay, though only she and her sister worked. She got up to cook at 3 a.m. each day, walked one and a half miles to the factory to start work at 8 a.m., and finished work in the mill at 5.30 in the evening. Women with young children faced even greater difficulties. They did not bring their children into the mill in most cases, but left them

with relatives, and had to leave the mill at the mid morning break to feed them. The women complained frequently about the long hours, and working on Sundays, and some would have been prepared to accept lower wages in return for a reduction in hours worked.⁷⁴

It has therefore been suggested that factory managers in the mills in Bombay were reluctant to employ women because they were unreliable workers, and there was too much absenteeism; M. D. Morris sees this as an explanation for the concentration of women in the reeling and roving departments, where their irregular hours did not affect production at the mill,⁷⁵ though there is little clear evidence of mill owners or other employers deliberately excluding women from employment in nineteenth century Bombay.⁷⁶

To sum up, the relegation of women to a limited range of the lower paid and less skilled jobs in the city may be partly caused by prejudice against women workers by male workers or management; however, it also appears to be related to a large extent to the unsuitable hours and working conditions of employment in the city, given that the traditional sexual division of labour relegated cooking, cleaning and child-care to the women of the household. For some women, particularly widows and deserted wives, there was no choice; but for many married women whose husbands migrated to the city, it was possible to earn as much in real terms (allowing for the high cost of keeping a family in the city) in the village as in Bombay. Though the demand for agricultural labour was largely seasonal, and women's participation in most craft production was limited, the family would at least have free housing, and the use of the small garden plot round the house. Besides this, the village operated an 'informal security mechanism',⁷⁷ which enabled village members to obtain freely items which would have to be bought in the city: the waste land in particular could be used to obtain fuel and fertiliser (from cow-dung and brushwood), and in the more wooded areas a wide variety of tree products could either be sold or used in the home.⁷⁸ Women from peasant families with land either owned or held on secure tenure were also able to provide some income in the dry season by cutting grass and selling it in the market; they were also able to contribute to the family's year-round income by repairing the embankments of rice

fields, which would increase production in the monsoon, and if their husband was away all year, could organise the cultivation of the family plot in the monsoon.⁷⁹

In conclusion, it appears that the demand for women's labour in the city in the nineteenth and early twentieth century was not great enough to cause employers to alter working hours and conditions to attract more women into employment. Given the higher cost of living and the unpleasant living and working conditions in the city, many migrant families from Ratnagiri, particularly those with young children, appear to have been forced to divide the family and send only the husband to work in the city, leaving the wife to supplement the family income by working in agriculture in the village, which could be more easily combined with child-care. It is probably significant that mill centres which employed a higher proportion of women, such as Ahmedabad and the South Indian mills, were situated in highly populated rural areas and drew their labour force largely from the villages around, whose workers commuted into the mills on a daily basis. If young married women from these villages decided to work in the mills this did not involve an expensive move to the city for the whole family, and child-care was more readily available through the extended family net-work within the village.

V Regional variations in the demand for labour within Ratnagiri district

As has been seen in Chapter 1, there was a distinct regional pattern in migration from Ratnagiri in the nineteenth century, and it is possible that this was caused by regional variations within the district in the demand for labour. One explanation of regional variations in labour demand within Ratnagiri would lie in the differing cultivation patterns in the district, some systems of cultivation being more labour intensive than others, or having a different seasonal distribution of labour demand.

1) Demand for labour in agriculture.

Irrigated rice or 'paddy', was one of the most labour intensive crops cultivated in Ratnagiri and occupied 28% of the Gross Cultivated Area by 1888.⁹⁰ Rice land was located mainly on the alluvial land on the creeks and on land reclaimed from the sea, and therefore the most rice land was found near the coast and on the lower reaches of the rivers, though rice cultivation was also found inland on terraced hillsides and in natural dips in the rocky uplands. Wet rice in Ratnagiri was mainly naturally irrigated, as the fields were flooded by the heavy monsoon rainfall or by natural run-off from surrounding ground and the over-flow of rivers. However, some of the rice land under cultivation was artificially irrigated by Persian wheels, lifts or tanks, or by streams diverted onto the terraced rice fields through stone channels (*pats*). Artificial irrigation was the most labour intensive form of rice cultivation, and also employed labour outside the monsoon season since it was possible to double crop with artificial irrigation, growing a second rice crop, pulses, or vegetables. However, artificial irrigation was found on only 5% of the net area under cultivation in 1893/4, and 6.5% by 1921.⁹¹ Most paddy cultivation had a high labour input because the crop was usually sown first in a seed bed, after brushwood had been burnt on it to fertilise the soil, and then transplanted to freshly ploughed, flooded fields once the monsoon had started, usually in mid June. Transplantation had to be done rapidly but carefully, and was usually carried out by women; after transplantation, labour was only needed for weeding until the harvest, which took place from September (for the inferior quality early ripening rices grown mainly by the poorer peasants) to November (for the high quality late ripening rices which could only be grown on the best soil).⁹²

By 1914 39% of the Gross Cropped Area in Ratnagiri district was under wet rice cultivation, but 52% was cultivated with 'dry grains', grown without irrigation on the hill land (see Table 2.7). Crops grown on the hill land in this fashion were mainly dwarf millets - *nagli* (*eleusine coracana*, known in the Deccan as *ragi*), *vari* (*Panicum miliare*), and *harix* (*paspalum scrobiculatum*, known in the Deccan as

kodra)- which were the staple food of the poor; pulses were also grown, and oil seeds, particularly niger seed and sesame seed. Labour requirements for these crops were in general lower than those for paddy, but varied according to the type of fields on which they were grown. On level hill land, which by the mid nineteenth century was all cultivated in semi-permanent fields, the ground was ploughed and often manured, and in the case of *nagli*, the most valuable of the hill grains, the crop was often transplanted from seed beds in the same way as paddy.⁶³ On the steeper hill land, however, this was not possible, and the poor quality of the soil made it necessary to cultivate on very long fallows. In this type of cultivation, therefore, the main labour input was in the period before the monsoon when the brushwood was cut and burnt on the fields, and in the early days of the monsoon when the ground was roughly dug over, ready to receive the broadcast seed.

Besides hill and paddy cultivation, there was a small percentage of the Gross Cropped Area of the district devoted to other, mainly commercial, crops which were usually grown in irrigated gardens, though some were grown in the more fertile unirrigated land. It is difficult to estimate the labour requirements of all this very varied group of crops, but they all required all-round labour input rather than a merely seasonal one. Estimates prepared in 1844 for the Collector of Ratnagiri showed that the costs of cultivation (which included manure, and assumed that all labour was hired) were highest for sugar (especially with irrigation), hemp and garden crops such as turmeric; while of the main food crops, the expenses of cultivating were highest for rice and *nagli* grown on level hill land, and the cheapest crops to cultivate were oil seeds.⁶⁴ The Season and Crop Report for 1882/3 estimated the cost of labour for one acre of rice land at 11 rupees 10 annas, and for one acre of *nagli*, in most labour intensive of the hill crops, at 10 rupees and 9 paise.⁶⁵

Given the varying labour demands of different crops, it should be possible to see some pattern of regional variation in labour demand within Ratnagiri, depending on the mix of crops grown in each area. As can be seen from Table 2.7, the areas with the highest concentration of labour intensive crops were the southern *talukas*: Vengurla, followed

by Malvan, Deogad, and Rajapur, all of which had 50% or more of the Gross Cultivated Area under rice, garden or other cash crops such as sugar and hemp; 30% of the rice grown in the district, and 70% of the sugar, were grown in Malvan *taluka*, while 61% of all the hemp was grown in Deogad.⁹⁶ It would, therefore, be reasonable to assume that demand for labour was higher within these *talukas* than in the northern areas of the district. There was also probably a variation in labour demand within *talukas*, since these administrative divisions often contained areas with greatly differing agricultural systems.

It should be possible to determine whether labour demand as a whole was higher in some parts of the district than others, by examining wage levels. The rice/wage index in Table 2.2 suggests that in the early twentieth century, when migration was well established, real wages were higher in the coastal areas than inland; for Ratnagiri *taluka*, which had a long coastline, the average index for 1900-16 was 167 for field labour, 216 for ordinary labour and 384 for skilled labour while for Khed *taluka*, which was landlocked, the index was 150 for field labour, 170 for ordinary labour and 381 for skilled labour. This could either be caused by the impact of demand for labour in Bombay on labour demand in the coastal towns of Ratnagiri; or it could be caused by the higher demand for labour in agriculture in the rice-growing areas of the coast as compared to the dry-grain cultivation inland. A wage differential between the different areas of Sangameshwar *taluka* was already observed in the 1820s,⁹⁷ and still existed in the early twentieth century.⁹⁸ In the 1820s, the variations in the prevalence of unfree labour also points to variations in labour demand in different agricultural regions. Within Ratnagiri and Sangameshwar *talukas* slavery was most prevalent in the market towns,⁹⁹ and debt bondage was most common in the prosperous villages in Sytowde and the north west of Sangameshwar *taluka*,⁹⁰ along the Shastri and Sad rivers, where level hill cultivation predominated and rice cultivation expanded most rapidly in the early nineteenth century. As has already been argued, the existence of unfree labour suggests that demand for labour may be higher than supply.

Data on wages also gives tentative support to the hypothesis that regional variations in real wages caused by external labour demand

were superimposed on variations created by internal labour demand, as the century progressed. In the 1840s, when migration was only just beginning, evidence, though not very reliable, suggests that wages were higher in Vijayadurg (later Deogad and Rajapur *talukas*) in the south of Ratnagiri district than in the north, but from 1914 wages for field labourers were lower in the far south, (three annas a day in Malvan *taluka*) than in areas closer to Bombay (five annas a day in Ratnagiri), and by the 1950s this difference had become quite distinct.⁹¹ This evidence suggests that the more intensive cultivation of the southern *talukas* and the rice growing areas of Ratnagiri *taluka* did indeed create a higher labour demand in these areas, but that over the nineteenth century the external labour demand from Bombay raised wages overall in the *talukas* closer to Bombay, and thus reversed the north-south wage differential, while possibly reinforcing the wage differential between the coastal/creek-side and inland districts.

ii) Demand for labour in non-agricultural employment

Regional variations in labour demand could also reflect the distribution of non-agricultural employment in the district. The Census of 1911 shows that there was little industry in the district by the early twentieth century: in 1911, there was one manganese mine, three fish curing yards, three distillers, and one oil mill.⁹² There is no evidence of there having ever been any large scale proto-industrial production in Ratnagiri such as was found in the textile producing areas of Gujarat, South India or Bengal in the eighteenth century, possibly because the district was remote from the *Maratha* courts in Poona and Satara in the seventeenth and eighteenth centuries;⁹³ in the 1881 census only 421 men and 123 women in Ratnagiri recorded their occupations as 'cotton hand-loom weaver'.⁹⁴ By the early twentieth century, long-distance trade largely by-passed the area also, since the building of the Southern Maratha Railway in the 1880s diverted Deccan-Bombay trade away from the Konkan. However, this had not always been the case. In the sixteenth century Ratnagiri district had been an important link in the trade routes between Africa, the Middle East and India; Dabhol, north of Ratnagiri town, was a major entrepot port and a bustling and impressive city, and Rajapur, in the south of

the district, also traded with the Middle East.⁹⁵ Dabhol was destroyed by the Portuguese in the late sixteenth century, and the wars which ravaged the Konkan in the seventeenth and early eighteenth century seriously discouraged trade.⁹⁶ However, by the mid nineteenth century, there were still important trading links with the Middle East, particularly in Rajapur, which still had a large permanent cloth bazaar as well as a temporary grain bazaar for the dry season, and received about 20 Arab boats a year.⁹⁷ In the mid nineteenth century, also, new trading centres developed, handling cotton from the Deccan on its way to Bombay and overseas, notably Chiplun which, from a village, had become a sizeable town by the 1880s, though its development was checked by the opening of the Southern Maratha Railway.⁹⁸ Compared to neighbouring areas of the Gujerat and Deccan, however, Ratnagiri offered little employment in long-distance trade or in industry the nineteenth century. The industrial enterprises recorded in Ratnagiri in the 1911 Census employed only 286 workers (192 male and 93 female);⁹⁹ in 1863 a saw mill was set up in Ratnagiri town by the Collector, A. Crawford, linked to the wood trade from the district, which was farmed out to local merchants and was experiencing a boom at the time in exports to Bombay. However the enterprise collapsed after a few years, and became eventually a government training school.¹⁰⁰ There was also relatively little long distance trade, because of the absence of important cash crops in the district and its situation in the transport networks of Western India. Even by 1921 the occupational statistics show that few were engaged in long distance trading - probably mainly the 276 men and 34 women engaged in the textile trade, and possibly some of the 288 men and 122 women listed as brokers and commercial travellers.¹⁰¹ Among general traders, some would also have been involved in the salt trade between the northern Konkan and the Deccan which passed through Ratnagiri, mainly through the northern ports such as Kharepattan.¹⁰² A much more significant source of employment was in government service. Most of the higher castes employed outside agriculture appear to have been working in government service by 1921 - 1,395 in the police, 2,763 in public administration, and 5,229 in the professions- predominantly men.¹⁰³ In 1881, public servants already formed a large group - 4,458 men -and

in the professions there were 2,759 men and 17 women.¹⁰⁴ Though there is no detail on their *taluka*-wise distribution within Ratnagiri, it seems likely that they were concentrated in main towns in the district, particularly Ratnagiri town.

As Ratnagiri district was not an important industrial or commercial centre, most non-agricultural employment, outside government service, appears to have been in small-scale handicraft production, petty trading and village level services, along with work in other areas of the primary sector, notably fishing. As the census data do not give details of the distribution of these occupations between the different regions of Ratnagiri, indirect methods have to be used to estimate regional variations in the demand for non-agricultural labour. The *mohotarfa* records for 1840/1 provide one source of statistical information.¹⁰⁵ These are the records of those paying the *mohotarfa* tax, which was imposed by the *Maratha* government in the eighteenth century on shopkeepers, merchants and craftsmen, and raised also by the British government until 1844.¹⁰⁶ They are inadequate in many ways, since under the British they were not kept up to date, and many of the wealthier merchants were exempt.¹⁰⁷ However, they do give some indication of the location of commercial activity, as do the records of the *bullottee* taxes, which were raised on village servants and craftsmen who received a regular payment from their village community, though these again were only paid by a limited proportion of craftsmen.¹⁰⁸ Some information on the distribution of non-agricultural occupations can also be gleaned from descriptions of the district by British officials, even though these do not often provide statistics. It is also possible, given that the majority of members of specialist craft and service castes still probably followed their traditional occupations in the mid nineteenth century, to use the caste data from the Censuses to plot the regional distribution of commercial activity.¹⁰⁹

Cotton spinning, for example, was limited to a few areas. There was some spinning on Jaigad creek in Ratnagiri *taluka* by the *Bhusari* Muslims (in Jaigad, Sytowde, Burbad and Tural villages),¹¹⁰ and the other main centres for thread production were probably in Vengurla and Rajapur *talukas*.¹¹¹ However, thread production was hampered

because cotton was not grown in Ratnagiri district and had to be imported, with the result that yarn tended to be imported from the Deccan rather than locally produced.¹¹² Weavers (mainly *Salvis*) were more numerous, making gunny bags, fishing nets, coarse white cloth for *dhotis* and blankets, though not enough to supply the districts needs which were partly met by imports.¹¹³ It was estimated in 1830 that a family of *Salvis*, making *dhotis*, would earn approximately 1,000 rupees a year, and *Bhusaris* making gunny bags, approximately 3½ annas a day profit.¹¹⁴ In 1846/7 there were 188 weavers paying *mohotarfa* tax in the southern *talukas* of Ratnagiri, Sangameshwar, Rajapur, Deogad and Malvan: 3 in Ratnagiri *taluka*, 79 in Sangameshwar *taluka*, 30 in Malvan (but some of the largest towns here did not pay the tax) and 71 in Rajapur and Deogad together.¹¹⁵ In 1872 also there appear to have been relatively fewer weavers in Ratnagiri district, since weavers represented 0.2% of the population of Ratnagiri *taluka*, and 0.4% of the population of Sangameshwar *taluka*.¹¹⁶ By the end of the nineteenth century, the distribution appears to have changed, since in Ratnagiri *taluka* there were 58 cotton looms in 1898 and in 1920 there were 70, while in Sangameshwar there were only 26 looms by 1915, a clear decline from 1846/7¹¹⁷, suggesting that the development of sea transport in the late nineteenth century may have shifted the commercial centre of the district back towards the coast (where it had been in the sixteenth century).

Fishing was another non-agricultural occupation which was clearly not distributed evenly through the district. While the greatest concentration of weavers appears to have been inland for much of the nineteenth century, the fishermen were obviously to be found mainly on the coast, though also on the banks of the rivers which crossed the district. Fishing castes formed less than 1% of the population in the land-locked *talukas* of Chiplun and Sangameshwar in 1872, and were particularly concentrated in the southern *talukas* of Deogad and Malvan, where they formed 7% of the population.¹¹⁸ In Malvan in 1915, 6,593 people out of a total population of 111,258 gave fishing as their occupation (out of a population of 76,176 'agriculturalists' and 35,081 'non-agriculturalists').¹¹⁹ According to a report in 1838, there were 69 fishing villages in the district, nearly all of them on the

coast or the mouth of a creek. These villages all had communities of fishermen who lived exclusively from fishing.¹²⁰ These fishermen did not merely catch the fish, but salted most of their catch and then sold it in the bazaars at the head of the creeks to traders from the Deccan. A considerable amount of the fish trading appears to have been done by the women of the caste, since in the 1881 census there were 7,584 female fish sellers listed in the Occupation Tables for Ratnagiri district, and 7,979 males, while in contrast there were 4,848 male grain dealers but only 276 females.

Fishing was the main non-agricultural occupation in Ratnagiri district - the Settlement Officer described it in 1911 as the only industry in Ratnagiri *taluka*.¹²¹ In 1881, 5,829 men and 68 women were employed as boat owners or sailors, and 7,979 men and 7,584 women as fish sellers and fishermen, while 9,742 men and 2,080 women were involved in other petty trading, 1,223 men and 98 women in money lending, and 13,576 men and 5,174 women in other crafts and manufactures.¹²² The distribution of occupations other than fishing within the district suggests that merchants, shopkeepers and craftsmen, including weavers, tended to congregate, even in the later nineteenth century, at the long-standing centres of communications between the coast and the Ghats, where the ships sailing up the creeks unloaded their goods for sale to the merchants travelling from the hilly interior, and even from across the Ghats. The *mohoturfa* returns for 1840/1¹²² show that within Ratnagiri *taluka* the greatest commercial activity was not on the coast, but in the towns situated inland, on or near navigable rivers, such as Sangameshwar, Devle, Makhajan, Lanje, Devrukh, and Peth Ibrahimpur, where most of the periodic markets were also situated. The distribution of shopkeepers and craftsmen between *talukas* both in 1840/1 and in 1872 (as indicated by the caste returns), shows that Deogad and Rajapur *talukas* were the greatest centres for trade, with Rajapur town having the largest concentration of shopkeepers in the district, followed by Sangameshwar town.

The implications of the data on non-agricultural occupations in Ratnagiri district is that the greatest demand for labour in the non-agricultural sector was in the south of the district, where the

greatest demand for labour in the agricultural sector was also to be found. The data also show that fishing provided a substitute for, and supplement to, subsistence agriculture in many of the coastal villages in the district, and that outside the main ports, the greatest craft and trading activity was to be found on the central plateau, at the point where the rivers which crossed from Ghats to the sea were still navigable, but could be more easily crossed. It is therefore not surprising to find less seasonal migration of subsistence peasants from the southern *talukas*, migration from these areas being dominated by recruits to the civil service and the army in Bombay. It is also not surprising to find that demand for labour was higher in the central plateau areas of the district than in the foothills of the Ghats, since there were more non-agricultural jobs available, and demand for labour in agriculture was greater. The importance of fishing as the main non-agricultural occupation in the area also helps to explain the development of the connection with Bombay, and the readiness with which the population turned to non-agricultural employment.

VI Conclusion

The investigation of demand for labour in Ratnagiri district and Bombay city in the nineteenth and early twentieth centuries has shown that the structure of demand for labour within Ratnagiri district played an important part in shaping the pattern of emigration from the district. Regional variations in demand for labour within Ratnagiri district, both in the agricultural and non-agricultural sectors, seems to explain differences in rates and patterns of migration from the different *talukas* in the nineteenth century. Demand for women's labour in agriculture in the district, along with seasonal variations in demand for labour in agriculture, also help to explain the development of a pattern of male seasonal and circular migration from the district. On the other hand, the role of demand for labour in Bombay in explaining patterns of migration from Ratnagiri is less clear. Seasonal reductions in demand for labour in the monsoon months in some key industries may have made it easier to release labour in

these months, and explain some of the movement back to the district during this period. A lower demand for women's labour in the mills in the twentieth century may also explain to some extent the low rate of female emigration at that period. But while the emergence of a tradition of emigration from Ratnagiri to Bombay coincides with the period of growth and expansion in the city from the 1840s, it is not easy to find a close correspondence between the fluctuations in employment in the city and the fluctuations in rates of emigration. Nor is it possible to argue that the higher real wages in Bombay reflect higher labour demand in the city than in Ratnagiri, and that relatively higher demand for labour in Bombay can therefore provide the explanation for emigration from Ratnagiri; for though real wages were higher in Bombay than Ratnagiri for comparable work for most of the period under consideration, the widespread use of labour service and debt bonded labour in agriculture in the district before 1880 probably kept wages artificially low, so that they do not necessarily reflect the actual demand for labour in the district.

It has already been argued in Chapter 1 that since Ratnagiri had a higher rate of emigration than other districts in Western India with similar access to labour markets, it is necessary to investigate supply side factors in order to explain the rates of emigration from the district. The conclusions of this chapter, that demand within the district was more important than demand outside in shaping the pattern of migration from Ratnagiri, reinforce the argument that the social and economic structure of Ratnagiri district itself must be the target of investigation. For example, if variations in rates of migration over time cannot be fully explained by changes in demand for labour in Bombay, some investigation is needed into the role of demographic and climatic change in Ratnagiri, and also the role of changing government policies, in creating new social and economic conditions favouring the development of migration from the district. Similarly, if regional variations in demand for labour within the district can explain regional variations in rates of emigration, it is nonetheless necessary to understand the reason for these regional variations in labour demand, such as differences in the ecology of the regions, or differences in their political history or their social

structure, in order to provide a convincing and integrated explanation of emigration. In the next four chapters, I shall consider the impact of demographic and political change, and the significance of ecology and social structure, in determining the patterns of emigration from Ratnagiri during the nineteenth and early twentieth centuries.

NOTES

1. BRP Range 372 Vol. 42 no. 6786 Dunlop's Minute dated 16. 8. 1838 para. 2.
2. Wingate's Diary p. 81 dated 27. 1. 1849.
3. *Census of India 1901* Vol. X Part IV pp. 120-140.
4. S. Yonekawa suggests that the crash of 1864-5 would not have seriously affected the mills and that the fall in cotton prices actually encouraged more investment: see his 'Public Cotton Spinning Companies and their Managerial characteristics 1870-1890, a comparative study of 4 countries', *Hitotsubashi Journal of Commerce and Management* 21,1,1986. See also S. D. Mehta, *The Cotton Mills of India* (Bombay, 1954) p. 32.
5. M. D. Morris, *The Emergence of an Industrial Labour Force in India* (Berkeley and Bombay, 1965) Appendix I.
6. *Ibid.* pp. 214-16 for a discussion of the problems.
7. *Ibid.* Appendix III. M. D. Morris points out, however, (pp. 289-91) that there are serious weaknesses in the *Prices and Wages in India* series which provide most information for the period 1883-1921: most noticeably, the stability of wage rates for long periods.
8. *Ibid.* Appendix III Table XX.
9. C. B. Hart, B. H. Ellis and J. B. Dunsterville, *Memo by the Commission appointed to Collect Information on the subject of Prices 1864/5*.
10. Director, Land Records and Agriculture, *Report on the Economic Condition of the Masses of the Bombay Presidency* (Government of India Revenue and Agriculture Department 1887) p. 41, estimates approx. 2 lbs. per day per adult man.
Report on the Diet of Prisoners and of the Labouring Classes in the Bombay Presidency (Bombay, 1865) pp. 128-130 'Report from Ratnagiri on the Food of the Natives', dated 1. 9. 1862 by J. Kearney, Acting Civil Surgeon and A. H. Leith Deputy Inspector of Hospitals, estimates approx. 2 lbs. per day of rice, or approx. 1½ lbs. of coarser grains, and in addition approx. 4 oz. of pulses and 8-12 oz. of vegetables, while fish eaters would also consume approx. 6-16oz. of fish per day. The cost per prisoner of daily food was 1 anna 5 paise.
11. Wingate's Diary p. 69.
12. *Report on the Diet of Prisoners and of the Labouring Classes in the Bombay Presidency* (Bombay, 1865) note 9, pp. 129-130.

13. G. Findlay Shirras, *Report on an Enquiry into Working Class Budgets in Bombay* (Bombay, 1923) p. 100 Table VII based on 2,473 budgets in 1921/2 in Bombay shows that food represented 57% of expenditure, clothing and bedding 8%, rent 8%, fuel 7% and other items 18%.

14. S. D. Mehta, *op.cit.* (1954) pp. 86-7. Production in the mills was reviving somewhat between 1900-06 after the blow dealt by the plague in Bombay, though in 1904 there was a set-back, and several mills closed, followed by an upturn in the market in 1905 when the Russo-Japanese War kept the Japanese opposition out of the Asian markets. However, the upturn faltered after 1906, and 1908 was a very bad year, with a world wide slump, as was 1911.

15. M.D. Morris, *op. cit.* (1965) p. 48.

16. M. P. Todaro, 'Internal Migration in Developing Countries: A Survey' in R. Easterlin ed., *Population and Economic Change in Developing Countries* (Chicago, 1980) *passim*.

17. See W. Hart, B. H. Ellis and J. B. Dunsterville, *op.cit.* (1864/5) Tables pp. 110-113, for data on the 1830s and 1863.

For 1900-1930 see D. Mazumdar, 'Labour Supply in Early Industrialisation: the case of the Bombay Textile Industry', *Economic History Review* 23,3,1973 Appendix p. 495.

18. BRP Range 371 Vol. 73 no. 3489 letter dated 14.5.1836 para. 2 and 3. The rates did vary greatly, however. On the one hand, in the hilly, remote parts of Sangameshwar in 1830, the rate was 4 days of labour service per year (Dowell's Notes p. 23), but on the other hand in Suvernadurg, Anjanvel and Ratnagiri generally the rate was 4 days per month with a meal, while in the south of the district, in Vijayadurg taluka (later known as Rajapur and Devgad) the rate was 2 days a month and in Malvan less: BRP Range 372 Vol. 16 no. 4155 letter dated 5. 5. 1837 para. 11.

19. Pune Archive English Language Records, 'Correspondance on the Khoti System 1820-1858' (List 10 Rumal 11/1), letter no. 90 dated 17. 6. 1850 Appendix A Chenceforth 'Khoti Letters' Rumal 11/1). See also Pune Archive 'Khoti Letters' Rumal 11/1 letter no. 204 dated 10. 2. 1851 quoting Dowell's Notes of 1830 on Ratnagiri taluka, which explained that labour service for agricultural work was 4 days per month with 2 days per year for ploughing, while peasants could also be required to serve additional days to accompany the *khot* on excursions.

20. Pune Archive 'Khoti Letters' Rumal 11/1 letter no. 5 dated 20. 2. 1845.

21. On payments for labour service see *Dowell's Notes* p. 375.

22. On provision of food for labourers see *Dowell's Notes* p. 133, 32, and 41. See also Pune Archive 'Khoti Letters' Rumal 11/1 letter no. 90 of 1850 dated 17. 1. 1850 Appendix A.

23. *Dowell's Notes* pp. 32 and 320. Those who were not in debt, were usually saving to get married.

24. *Dowell's Notes* on slaves (*chakar* - male and *kunbini* - female) pp. 32 and 50. In Ratnagiri and Sangameshwar talukas 8% of households were slaves (952 slave households out of a total of 12,643 households detailed in *Dowell's Notes* (*passim*), though many slave households were probably small, with only one adult.

25. A. G. Desai, *The Khoti Settlement Act* (Bombay, 1913) p. 147 (Section 35 of the Amended Khoti Settlement Act of 1913).

26. W. Hart, B. H. Ellis and J. D. Dunsterville *op. cit.* (1864/5) pp. 110-13; see also 'Crop Experiments Bombay Presidency 1882/3' Southern Division Reports p. 76: wages of labourers were 2½ sers of *nagli* (worth 1 anna at the time) and 9 pices each.

See also *Wage Census of Bombay Presidency including Sind taken August 1911* (Bombay, 1919) p. 2

27. For a discussion of the value to landlords of free and coerced labour in a European context, see R. Millward, 'An Economic Analysis of the Organisation of Serfdom in Eastern Europe', *Journal of Economic History* Sept. 1982.

28. The importance of this labour to the *khots* is indicated in a mortgage bond of 1850, where the mortgagors of the khotiship promise the mortgagees who have taken over the management of the khotiship, that 'we will in no way influence the cultivators against you nor cultivate by their aid': Pune Archive, English language records, 'Ratnagiri Survey' (List 10 Rimal 14/4) letter no. 357 of 1852 (henceforth Pune Archive, 'Ratnagiri Survey' Rimal 14/4).

29. *Dowell's Notes* p. 37. 'Crop experiments 1882/3' p. 72 - the lower castes helped each other out, though *Marathas* and *Brahmans* did not.

30. M. P. Moore, 'Co-operative labour in Peasant Agriculture', *Journal of Peasant Studies*, 2,3,1975 pp. 278-9 and p. 285.

31. MSA RD Vol. 14 of 1856 Comp. 1435 letter no. 118 of 1853 dated 16. 1. 1853, Revenue Report 1851/2 para. 97.

32. e.g. BRP Range 371 Vol. 73 no. 3490 letter dated 31. 5. 1836, memo by the Acting Secretary, who believed that the *khots* forced the peasants who tried to leave the village to come back or pay rent for the field they had left.

33. MSA RD 1874 Vol. 102 Comp. 1856 rough notes on the Settlement by Col. Francis, the Survey and Settlement Officer, p. 707 para. 15: it was customary for the *khots* to get one day of labour service a week from cultivators.

34. *Gazetteer* (1880) p. 170.

35. R. P. Cholia, *Dock Labourers in Bombay* (Bombay, 1941) p. 27 points out that the demand for dock labour was seasonal.

36. *Gazetteer of the Bombay City and Island* Vol. I p. 322: the greatest demand for labour in the city was from March to the end of June, for home repairs and building work to be finished before the monsoon.

37. In general, occupations such as professionals (writers, police), personal servants (domestic servants, scavengers), and crafts such as tailors and wood workers, show a less pronounced seasonal variation in death rates than labourers and boatmen, who tend to have above average deaths in November, December and January. This suggests that labourers and boatmen may have migrated seasonally into the city, while professionals, craftsmen and personal servants were more likely to have worked in the city all year round. The seasonal variations in the size of population of Bombay at this period is highlighted by the statistics on overall deaths in the city between 1849-63 which were higher in August to January than in February to July, though one would expect there to be a higher death rate from February to July, because the climate was less healthy at that time of year, and because food prices were higher in the period before the harvest. It is also notable that between 1849 and 1863, 75% of those who died in Bombay were born outside the city.

38. e.g. *Gazetteer of Bombay City and Island* Vol. I (1909) pp. 208-10; *Report of the India Factory Labour Commission, 1908* Vol. I (London, 1908), p. 18; *Report of the Royal Commission on Labour in India, June 1931* (London, 1931), pp. 12-19.

39. M. D. Morris, *op. cit.* (1965) pp. 98-100. Morris uses data on absenteeism from the Bombay Labour Office for 1922-1947, and data on yarn and cloth production from The Statistical Department, Government of India, *Statistics of Cotton Spinning and Weaving in the Indian Mills*.

40. B. Misra, 'Factory Labour during the Early Years of Industrialisation: an Appraisal in the Light of the Indian Factory Commission 1890', *Indian Economic and Social History Review* 12, 1975, p. 213 Table 6: of 47 workers interviewed in Bombay in 1890, 13 (28%) had strong links with their home village, having a house and land there, and going home periodically to participate in agricultural operations

41. M. D. Morris *op. cit.* (1965) p. 100.

42. See, for example, Department of Statistics, India, *Monthly Statistics of Cotton Spinning and Weaving in Indian Mills* Jan. 1920-Dec. 1921, statistics for Bombay Island. M. D. Morris *op. cit.* (1965) p. 98 argues that the output figures provided by the Department of Statistics (*Monthly Statistics of Cotton Spinning and Weaving in Indian Mills*) indicate sales rather than actual production, which clearly may not accurately reflect actual production, especially in composite mills where yarn spun in the mill was also woven there. However, in the Department of Statistics, India, *Monthly Statistics of*

Cotton Spinning and Weaving in Indian Mills Jan. 1920 p. 3 it is specifically stated that the statistics for yarn represent the quantity of all yarn actually spun in the mills, whether they are subsequently woven in the mills or not.

43. See M. D. Morris, *op. cit.* (1965) pp. 214-16 on the reliability of employment statistics. For further comments on the recording of absenteeism, see Government of Bombay Labour Office, *Report on an Enquiry into Wages and Hours of Labour in the Cotton Mill Industry, 1926*, (Bombay, 1930) p. 4; and Government of Bombay Labour Office, *General Wage Census Part I 'Third report on Wages and Hours of Work and Conditions of Employment in the Textile Industry of Bombay Presidency, May 1934,'* (Bombay, 1937) p. 19.

44. M. D. Morris, *op. cit.* (1965) pp. 93-96.

45. M. D. Morris, *op. cit.* (1965) p. 99.

46. V. C. Ranade, *Social and Economic Survey of a Konkan Village* (Bombay Provincial Co-operative Institute, Bombay Rural Economics Series 3, 1927).

47. *Selections* NS no. 630 (Bombay, 1929) p. 63.

48. *Gazetteer of the Bombay Presidency* Vol. XIX Satara (Bombay, 1885) pp. 160-163; Vol. XXII Dharwar (Bombay, 1884) pp. 272-3; Vol. XVII Ahmednagar (Bombay, 1884) pp. 243-4; Vol. XVIII Poona (Bombay, 1885) pp. 142-3; Vol. II Surat and Broach (Bombay, 1877) p. 404; Vol. I Ratnagiri (Bombay, 1880) p. 143.

49. e.g. see *Annual Report of the Director of Land Records and Agriculture for the year 1889/90* (Bombay, 1891) pp. xiv-xv.

50. Wingate's Diary p. 78.

51. BRP Range 374 Vol. 44 no. 7297 letter dated 15. 2. 1844 para. 14.

52. In Bhiwendi and Thana Collectorates, cutting and selling grass for the Bombay market was a common practice; see *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. II p. 60. But grass was also sold in markets in Ratnagiri: see *Selections* NS no. 574 (Bombay, 1920) p. 23.

53. BRP 1829 Range 370 Vol. 22 no. 232 letter dated 1. 11. 1829 para. 8.

54. MSA RD Vol. 57 Comp. 907 letter no. 1503 of 1873 dated 12. 5. 1873.

55. *Gazetteer of Bombay City and Island* Vol. I (Bombay, 1909) p. 204.

56. *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. II Part II p. 20. A Thakur labourer in Thana, where there were admitted to be labour shortages in the monsoon months, was paid 2 annas a day for

grass cutting in the dry season; on the other hand, a *Kathkari* labourer in neighbouring Kolaba (described as 'wandering' and 'landless' in the Report) was paid 1½-2 annas a day at sowing and harvesting in the main agricultural season (p. 189). Bombay Presidency Department of Agriculture 'Crop Experiments' 1883, p. 84, describes how in Ratnagiri, hired labour was paid 2 seers of nagli (worth about 1 anna) or 1½ annas a day for cutting and spreading leaves and branches on the fields during the dry season.

According to V. C. Ranade (*Social and Economic Survey of a Konkan Village* (Bombay, Provincial Co-operative Institute, 1927) p. 82) in Kolaba, in a village from which 20% of the population had migrated permanently or temporarily, in the 1920s ordinary labour was paid at 8 annas a day for a man, but paddy transplanting and reaping was paid at 1 Rupee a day.

57. S. D. Mehta *op.cit.*(1954) p. 130- though he points out that the impact was reduced because women were in any case already largely confined to the reeling and winding departments, which did not need to work at night. See also R. Kumar, 'Family, Factory and Women in the Bombay Cotton Textile Industry 1919-39', *Indian Economic and Social History Review* 20,1,1983 especially p. 102, and M. D. Morris *op. cit.* (1965) pp. 65-69.

58. M. D. Morris *op. cit.* (1965) Table IX and R. Kumar *op. cit.* (1983) p. 102.

59. R. Kumar *op. cit.* (1983) p. 98.

60. R. Kumar *op. cit.* (1983) pp. 106-7.

61. E. Boserup *Women's Role in Economic Development* (London, 1970).

62. *Census of India 1891* Vol. VII Part I Ch. XI p. 170, explains that in 1881 each person was enumerated according to the work they did for a livelihood, while in 1891 they were enumerated according to the work done by the person from whom they derived subsistence.

63. *Census of India 1881* Bombay, Vol. II Appendix C Detailed Occupational Table II p. lxxvi-lxxiv.

64. *Census of India 1921* Vol. VIII Part II Table XVII.

65. As a percentage of all agricultural labourers, women agricultural labourers were: in Ratnagiri, 63% in 1881, 62% in 1901, 68% in 1911 and 70% in 1921; in Satara, they were 54% in 1881, 56% in 1901, 60% in 1911 and 50% in 1921; in Kolaba they were 56% in 1881, 56% in 1901, 59% in 1911 and 60% in 1921; see *Census of India 1881* Bombay, Vol. II p. lxxvi, *Census of India 1901*, Vol. IXA Part II Table XV, *Census of India 1911*, Vol. VII Part II Table XV, and *Census of India 1921*, Vol. VIII Part II Table XVII.

66. *Census of India 1911* Vol. VIII Part II Table XI Part III.

67. M. Valverde, ' 'Giving the Female a Domestic Turn' The Social, Legal and Moral Regulation of Women's Work in British Cotton Mills 1820-1850', *Journal of Social History* 21,4,1988.

68. *Bombay and Lancashire Cotton Spinning Inquiry* Manchester Chamber of Commerce (Manchester, 1888), Minutes of Evidence and Report p. 57: Reelers in the Greaves Mill were all women.

Report of the Indian Factory Labour Commission 1908 (London 1909), Report p. 13.

69. *General Vages Census Part I. First Report: 'On Wages and Hours of Work and Conditions of Employment in the Engineering Industry in Bombay Presidency, May 1934.'* Government of Bombay Labour Office (Bombay, 1935) Vol. I p. 90 - there were 138 *naikins* in Bombay - 3 in engineering, 135 in other concerns, mainly textiles.

70. R. Kumar *op. cit.* p. 85.

71. Calculated from *Census of India 1911* Vol. VIII Part 2 Table VI Part II.

72. H. Dandekar, *Men to Bombay, Women at Home* (Bombay, 1986), describes vividly contemporary arrangements among migrants to Bombay from a village near Pune, where the wives in the extended family will take it in turns to go to Bombay to look after the male members of the family in the city. See also *Report of the Indian Factory Commission 1908* (London, 1908) Vol. 1 Report p. 22 describes how single male workers boarded with other family members in the city, and female relatives cooked for all the men and brought their food to the factory.

73. Parliamentary Papers 1891: 'Copy of a Report of the recent Commission on Indian Factories appointed Sept. 1890' p. 23, 'the evidence of a Maratha woman': the men go to work one hour before the women, and women leave half an hour earlier.

74. *Idem.* pp. 23, 27 and 28.

75. M. D. Morris *op. cit.* (1965) pp. 68-9.

76. The suggestion that management in the Bombay mills was reluctant to employ women on grounds of their 'unreliability' contrasts interestingly with the attitude of Russian mill owners in Petrograd in 1907, who were also employing 'first generation' mill workers from the rural areas, who began to employ more women at this time because of 'their greater industry, attentiveness and abstinence (they do not drink or smoke), their compliance and greater reasonableness in respect of pay.' (quoted from 1907 annual factory inspector's report, in S.A. Smith *Red Petrograd* (Cambridge, 1983).

77. M. Das Gupta, 'Informal Security Mechanisms and Population retention in Rural India', *Economic Development and Cultural Change* 36,1,Oct. 1987 pp. 101-120 shows how community resources in the

villages provide an extra income not available in the urban areas, which encourages the poor to stay in the village.

78. For the uses of trees in the Konkan see *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. III Appendix A p. 131 'List of Purposes for which different jungle trees are useful'.

79. Parliamentary Papers 1891: 'Copy of a Report of the recent Commission on Indian Factories appointed Sept. 1890', p. 50 1890 Factory Commission Report (op. cit.) p. 50, a boy aged nine explained that his mother was at home looking after their fields, while the boy and his father worked in the city.

80. *Annual Report of the Director, Land Records and Agriculture, Bombay 1887/8* (Bombay, 1888) p. x.

81. *Gazetteer* (1880) pp. 145-146; Government of India Department of Revenue and Agriculture, *Returns of Agricultural Statistics of British India and the Native State of Mysore for 1893-4* (Calcutta, 1895) pp. 38-9; P. C. Patil, *The Crops of Bombay Presidency* (Department of Agriculture Bulletin no. 109) p. 59.

82. For a description of rice cultivation in the Konkan see *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. I Appendix on Rice Cultivation in Thana pp. 226-7 and Appendix on Rab in Kolhapur p. 226.

83. 'Crop Experiments', 1890/1, Analysis of Crop experiments in the Southern Division p. 26.

84. BRP Range 374 Vol. 44 no. 7297 dated 15. 2. 1844 enclosure no. 7.

85. Crop Experiments Bombay Presidency 1882/3 Southern Division Reports pp. 76-79.

86. P. C. Patil, *The Crops of Bombay Presidency* (Department of Agriculture Bulletin no. 109 Bombay 1921).

87. *Dowell's Notes* p. 32 suggests that it is less easy to get farm servants in the *bhatle* villages (on the inland plateau) than up in the Ghats - pointing out that the pay was the same but the work was lighter in the Ghats and 'the money goes further' and therefore it was a more popular job. *Dowell's Notes* p. 375 explains that payment for labour service is greater on the coast than in the remoter villages (the *jangal*).

88. *Selections* NS no. 559 (Bombay, 1919) p. 7.

89. There were 13 villages described by Dowell in Sangameshwar and Ratnagiri talukas which contained 20 or more houses of *Gulam*, *Chakar* or *Kunbini*. Nine of them were on the coast or the main navigable waterways; five of them were a *kasba*, (a long standing market or administrative centre); six of them were *dharekari* villages (where it was less easy for landowners to use forced labour); and in four of them there were important alternative occupations to farming - fishing

in three and weaving in one. This does seem to re-inforce the suggestion of a connection between unfree labour and labour shortages. *Dowell's Notes* pp. 383, 382, 379, 361, 287, 265, 260, 238, 234, 233, 123, 76 and 46.

90. There were 40 villages described by Dowell in Sangameshwar and Ratnagiri talukas where *shetkaris* (debt bonded labourers) were said to have been employed. The numbers employed in each village were usually small - only five villages had 20 or more *shetkaris*, and three of them were market villages. There appear to have been no *shetkaris* employed in villages of *tarf* Kuriat Newre, which was near Ratnagiri town, and only one in ten of the villages in *tarf* Dewale and Devrukh, in the more barren hill land inland, had *shetkaris*. In *tarf* Kondivre, Phunagusa and Sangameshwar, however, 26 out of the 88 villages had *shetkaris*, and these villages were in the central plateau, and around the main navigable waterways, where the land was good and there was alternative employment.

91. BRP Range 374 Vol. 44 no. 7297 dated 15. 2. 1844 enclosure no. 7; *Selections NS* no.574 (Bombay, 1920) p. 10; *Selections NS* no. 578 (Bombay, 1915) p. 7; *Maharashtra State Gazetteer Ratnagiri District* (Bombay, 1962) p. 365.

92. *Census of India 1911* Vol. VII Part II Table XV Pt.E II.

93. *Gazetteer 1880* p. 187.

94. *Census of India 1881* Bombay Vol. II Appendix C Detailed Occupational Table II pp. lxxvi-lxxiv.

95. C. Fawcett ed., *Travels of the Abb'e Carr'ee in the Indies and the Near East 1672-1274* (Hakluyt Society no. XCV, London, 1947) p. 200.

96. *Gazetteer of Bombay Presidency* Vol. 1 Part II (Bombay, 1896) pp. 35, 41 and 47.

97. Wingate's Diary p. 73.

98. *Selections NS* no. 559 (Bombay, 1919) p. 6; *Selections NS* no. 528 (Bombay, 1915) p. 11.

99. *Census of India 1911* Vol. VII Part II Table XV Pt. E II.

100. MSA RD Vol. 40 of 1870 Comp. 583 letter no. 1058 dated 20. 10. 1869; *Gazetteer 1880* p. 189.

101. *Census of India 1921* Vol. VIII Table XVII. B.

102. Pune Archive, English language records, 'Government Outward letters' 1823 Vol 8A of 1823 letter no. 56 dated 1. 10. 1823 para. 8-23.

103. *Census of India 1921* Vol. VIII Table XVII B.

104. *Census of India 1881* Bombay Vol. II Table XII.
105. Pune Archive, Revenue Commissioner Central Division Records Vol. 66 pp. 204-222 Statistics B return of Mohotarfa Taxes for the Towns and Villages of Ratnagiri Collectorate from 1846/7.
106. BRP Range 375 Vol. 47 no. 7025 letter no. 1327 dated 20. 11. 1845 para. 60
107. BRP Range 372 Vol. 32 no. 5400 dated 12. 12. 1837.
108. BRP Range 373 Vol. 14 of 1840 no. 2373/4 enclosed with no. 2373 dated 30.3.1840: Report on the Bullottee tax.
109. MSA General Department Vol. 8 of 1851 Census of Sattara District, Sept. 1845 enclosed with letter no. 370 dated 28. 12. 1850, gives data on occupations pursued by different castes in Satara, and shows that: 80% of the *Desastha Brahman* caste followed an occupation which was clerical/professional/religious: 81% of the *Maratha* caste and 76% of the *Kumbi* caste were landholders: 46% of the *Vani* caste were involved in commerce and 31% were landholders: 92% of the *Nahar* caste were village servants: 98% of the *Sutar* (carpenter) caste were carpenters: 88% of the *Sonar* (goldsmith) caste were goldsmiths or 'examiners of Rupees': 94% of the *Chambhar* (leatherworker) caste were shoesellers: 94% of the *Mhavi* (barber) caste were barbers: 71% of the *Shimpi* (tailor) caste were tailors or drapers, and 67% of the *Teli* (oil-maker) caste were oil-makers.
110. *Dowell's Notes* p. 350.
111. BRP Range 371 Vol. 16 no. 4310 letter dated 27. 6. 1833 para. 3.
112. *Dowell's Notes* p. 350 and *Gazetteer 1880* p. 188.
113. BRP Range 370 Vol. 22 no. 232 letter dated 1. 11. 1829 para. 76.
114. *Dowell's Notes* pp. 373 and 266-7.
115. Pune Archive Revenue Commissioner Central Division Records Vol. 66 Statement B pp. 204-222.
116. *Gazetteer 1880* pp. 303-315.
117. *Selections MS* no. 377 (Bombay, 1898) Appendix G p. 16; *Selections MS* no. 574 (Bombay, 1920) p. 6; *Selections MS* no. 559 (Bombay, 1919) p. 6.
118. Calculated from *Gazetteer, 1880* pp. 303-315.
119. *Selections MS* no. 528 (Bombay, 1915) p. 41 Appendix D.
120. BRP Range 372 Vol. 45 of 1838 no. 8497 letter dated 16. 9. 1838.
121. *Selections MS* no. 574 (Bombay, 1920) p. 6 para. 35.

122. *Census of India 1881* Bombay Vol.II Appendix C Detailed Occupational Statistics Table II pp. lxxvi-lxxiv.

123. Pune Archive Revenue Commissioner Central Division Records Vol. 66 pp. 204-222 Statistics B.

CHAPTER 3

DEMOGRAPHIC CHANGE AND MIGRATION FROM RATNAGIRI

I Introduction

Demographic factors, in the form of population pressure on land and other resources, are implicit in many explanations of rural-urban migration in the nineteenth and twentieth centuries. For example 'surplus labour' or 'disguised unemployment' in agriculture is seen by many economists as related to 'overpopulation' in a subsistence agrarian economy, since pressure of population could lead to a decline in the marginal product of agriculture, and subsequent pressure on the real wage rate. This in turn could be expected to encourage migration into the higher wage employment in the cities or other areas of the capitalist sector where there is a similar demand for labour.' Similarly migration is often explained by historians as a response to acute agrarian crisis, exemplified most dramatically by famines, for which population pressure on land may provide an explanation. While neo-Malthusians may give primacy to demographic explanations of agrarian crisis,² even those who see the inadequacies of the market, and failures of exchange entitlements as the root cause,³ would still generally accord some role to demographic change.

Can population pressure therefore be seen as an explanation for migration from Ratnagiri? At first sight it appears that this might be the case. The census data show an apparently rapid rise of population in Ratnagiri in the nineteenth century, averaging approx. 1% p.a. from 1820-1901, with most of this growth in the first 70 years of the century, and by the mid nineteenth century the district was displaying many of the classic symptoms of 'over-population', such as fragmentation of holdings and soil erosion (see Chapter 5). The most rapid period of population growth in Ratnagiri occurred between 1845

(when a census of most districts of the Presidency was taken), and 1872 (the date of the first all-India Census), and coincides with the beginning of migration to Bombay from the district. Ratnagiri's population between those years rose by 63%, an annual rate of growth of over 2%, compared with an annual rate of 1.3% during the previous 26 years, and an annual rate of 0.5% during the next 39 years, up to 1911 (see Table 3.1). Some other districts in the Presidency also show rapid increases in population in the mid nineteenth century, such as Dharwar (53% from 1845-72), Poona (50%) and Surat (41%). However, in others the population only rose slowly (e.g. Sholapur (8%), Belgaum (9%) and Thana (3%)) and the population of Ahmednagar actually declined (- 17%).⁴ These great variations in growth rates for neighbouring districts over the same period could be explicable in terms of the different sub-economies and climates of the regions of Western India, but they also suggest the possibility that the early censuses, before 1872, may have been inaccurate. It is possible, therefore, that the high rates of population growth recorded for Ratnagiri, which appear to coincide significantly with the first wave of emigration to Bombay, may to some degree be caused by under-enumeration in the early censuses. It is certainly most unusual to find growth rates like those of Ratnagiri between 1845 and 1872, at over 2% a year sustained over 25 years, except in some developing countries in the mid twentieth century.⁵

II The accuracy of the censuses in Ratnagiri

In order to assess the significance of the census data, it is first necessary to consider the accuracy of the censuses. Ratnagiri was not an easy district in which to conduct a census. The countryside is rugged and intersected by many creeks and rivers; there were few made roads even by the end of the nineteenth century, and there were many remote, isolated villages up in the Ghats. Furthermore, there were few village officers, such as the accountant or *kulkarni* of the Deccan villages, to keep accurate records and assist in census taking.

The first census data available for Ratnagiri is contained in the house tax and *karsai* tax records from the Peshwa's administration in

the late eighteenth century (see Appendix I). These list the number of houses in each village, and sometimes provide more detail on the caste, composition and origins of each household. These are not available for all *talukas* of the district, and I have used only those which have survived from Ratnagiri and Sangameshwar *talukas*, as they can be compared with population estimates for villages in these *talukas* in the 1820s. The house tax and *karsai* records are in some cases extremely detailed. However, there was clearly always a danger of under-enumeration, since the information on households in each village appears to have been supplied to the government clerks by the *khots*, who were themselves responsible for paying the house-tax of their village to government.⁶ The house tax and *karsai* records also rarely give information on the number of persons in each household. Since it cannot be assumed that average household size will remain static over time, any conclusions drawn from the use of these sources must clearly be very tentative (see Appendix II).

House tax surveys were supposedly made every ten years. The British government suspended the collection of the house tax in 1837, and their house tax records do not appear to have survived, though a rather unconvincing set of annual population estimates for the district for 1827/8 to 1841/2 may have been based on these records.⁷ It also seems possible that the first census of the district under the British, taken under the supervision of the Collector, Pelly, in 1820, based on information supplied by heads of households, was connected with the house tax survey probably made in that year.⁸ These censuses are likely, therefore, to suffer from the same defects as the eighteenth century house tax records.

A rather different set of population data, however, is available for villages in Ratnagiri and Sangameshwar *talukas* in 1827/30. Lists of the houses and population of most villages in these *talukas* was made in those years by Captain Dowell, a Survey Officer, in the course of an experimental survey of the *talukas* made with a view to re-assessing the land revenue payments.⁹ Dowell visited most of the villages in person, consulting village records and interviewing both the *khots* and their tenants - separately wherever possible, since he suspected the *khots* of having told their tenants in advance how to

answer questions.¹⁰ Though he clearly still had to rely substantially on the information supplied by *khots* and other village officers, he was able to check this to some extent by his own observation: by his own estimate, the population figures which he obtained were an underestimate by about 20%.¹¹

The first attempt at a proper, simultaneous enumeration of the population of the whole of the Bombay Presidency was made on January 1st 1846.¹² However the basic method of relying on the district and village officers to make the returns remained the same. Forms printed in the vernacular were sent to these officers to complete and return to the Collector's Office, where they were compiled into the English language returns for each *taluka*.¹³ Since in some villages near the Ghats all the inhabitants were illiterate, the existence of standardised printed forms was not always indicative of improved enumeration.¹⁴ Moreover no special forms were used to fill in details of household returns, and collectors were left to devise their own household forms, (if indeed they used any at all, as information was simply required for the village as a whole, in the traditional manner).¹⁵ The information required by the census was detailed, but not more so than that of Pelly in 1820; numbers of males and females of each caste were given, but no information on ages, or even simple division into children and adults; houses were given, but not for each caste; births and deaths, and also immigration and emigration in the previous year were recorded, but the Collector of Ratnagiri did not have much confidence in these statistics.¹⁶ The census was repeated using the same methods in 1851,¹⁷ (and in Ratnagiri district a census was apparently also taken in 1855,¹⁸ but there is no information on the methods used). Viewed as an accurate simultaneous census of the Presidency, this census had many faults,¹⁹ and as a census of Ratnagiri district it does not appear to have greatly improved on earlier attempts. There were no proper forms for household returns, there was confusion over caste divisions,²⁰ and the problem of counting those temporarily absent from home on the night of the census was not considered.²¹ It seems likely, therefore, that in this census there was underenumeration, with some of the remoter hamlets being completely omitted, and the lack of proper household returns

leading to under-enumeration of children and women. The high sex ratios in these censuses (as high as 111.1 in 1851) suggests that women were indeed under-enumerated, though the modern censuses of India also show high sex ratios (106 for India in 1961) which suggests that under-enumeration of women was not the only cause.²²

The lack of proper household return forms was clearly the most glaring inadequacy of the 1846/51 census, and this appears to have been recognised by survey officers who conducted a small census of 30 villages in Ratnagiri taluka in 1855, in connection with an experimental survey.²³ This census is on the same pattern as returns submitted from all the surveyed districts of the Presidency at this period, and can be seen in the context of the growing demand for a more methodical census. It suffers from being taken over a period of time, but its significant innovation is that returns appear to have been made by households, which means that it is probably more accurate than earlier censuses, and material is included which was not available in any previous survey, though the method of compiling the returns is rather confused which detracts from their usefulness.

Clearly by 1855 the need for a more methodical survey was being felt by the British authorities in India. In 1856 it was proposed that at the next census each small village, or section of a larger town or village, should have its own enumerator who, on the day of the census, would visit each house and record on proper household forms the occupants, their sex and their relationship to the household head.²⁴ These plans were delayed, and it was not until 1872 that the first census based on household returns was made for the whole Presidency, though a census of Bombay city was made in 1864.

The Census of 1872, and the subsequent decennial Indian censuses from 1881, were based on the system tentatively sketched out in 1856.²⁵ Enumeration was still done in many villages by headmen or accountants. Where these were lacking, especially in the towns, and in districts like Ratnagiri where village *zamindars* were reluctant to take on the task, other government employees or paid enumerators were used. Enumeration was done by 'enclosures' in 1872 (which could contain one or more houses) which caused much confusion, but from 1881 enumeration was done simply by houses, (though the definition of

a 'house' also caused difficulties, which make the data on household size for this period unreliable: see Appendix II). All details of age, sex and relationship to household head of the occupants were recorded on standardised forms, one for each house. The details of the number of houses and enclosures to be enumerated were filled in beforehand; and from 1881 the census forms were in fact completed, with all the details on houses and occupants, by junior grade revenue officials or by the census supervisors some weeks before the census day; on the census day the enumerators simply checked these figures. The author of the 1891 Census General Report felt that this system of double checking made the Indian census as accurate, if not more so, than the British censuses of the period, which relied on householders themselves to fill in the returns.²⁶ Great care was taken from the beginning to avoid double enumeration or omission of travellers and people temporarily absent from home on the night of the census.²⁷

The census taking methods and the accuracy of the results of the decennial censuses were submitted to critical discussion in the Census General Reports. The 1881 Census General Report cast doubts on the efficiency of the census in Ratnagiri because of the lack of resident village officers, which meant that most of the work was done by paid enumerators who were felt to be less efficient, and also because of the rough country, which made the work of the enumerators lengthier and more arduous.²⁸ The 1891 General Report²⁹, however, felt that the enumeration had greatly improved in 1891, because more people from departments outside the revenue department had been employed to help with the preliminary work, and this work was begun much earlier, so the enumeration was much more careful.

In spite of these general improvements in the quality of enumeration, there are areas where the decennial censuses of the nineteenth and early twentieth centuries are still particularly weak. Firstly, data on caste was sometimes inaccurate. The main confusion arose where an occupational name was also the name of the main caste practising the trade, in which case minor castes in the same trade might get enumerated in the larger caste. For example *Lohar*, meaning blacksmith, is the caste name of the largest caste of blacksmiths in Ratnagiri, but *Dhawad* and *Ghisadi* castes are also blacksmiths, and

could have been enumerated as *Lohar* instead. Another source of confusion was the existence of subcastes; in some cases they might be enumerated as a separate caste; in others, they might be enumerated with a larger caste bearing the same name. This is particularly likely to have happened in Ratnagiri in the case of the sub-castes called *Naratha* (e.g. *Naratha Shimpí*) who could easily be included as *Narathas*).³⁰ A third difficulty was in the classification of religious groups; for example, the *Lingayat Vani* could be classified under the *Vani* caste, or the *Lingayat* religion. Similar difficulties occurred with the many Muslim sub-castes of predominantly Hindu castes. In Maharashtra, there was the additional problem of defining *Naratha* and *Kumbí*, since these were strictly speaking not separate castes, but status groups, *Narathas* being of higher status than *Kumbí*, and it was possible to move from one to the other.³¹ Another problem with caste data is the inconsistencies in the listing of castes across censuses. The 1846 and 1851 census only list major castes separately, the rest being labelled 'other Hindus'. The 1872 caste data published in the Ratnagiri Gazetteer³² and the 1891 Census give full information on castes, but the 1881 census only lists 28 castes separately, and the 1901 census lists 43.

Secondly, the data on age present problems. Like the data on caste, they are not presented consistently across censuses. Before 1855 the only information on age in censuses consists of the division of the population into 'children' and 'adults', with the age of maturity not usually specified. The 1855 census of 30 villages in Ratnagiri taluka divides the population into groups aged 0-5, 5-10, 10-15 and over 15. However, the 1872 census groups them in ages 0-1, 1-6, 7-12, 13-20 and then in ten-year age groups. The age grouping becomes more consistent from 1881, with division of the population into five-, ten- or twenty-year age groups, but there are considerable variations within this pattern. The 1881 and 1891 censuses list all ages from 0 to 5, then five-year age groups from 5 to 40, and mainly ten-year age groups after that. The 1901 and subsequent censuses, however, give no details on individual year groups, and give five-year groupings only up to age 20, after that grouping the population in twenty-year age groups. Besides this, the data on ages are not very reliable: the 1931

Census General Report estimated that 20% of entries on age were inaccurate.³³ Age specific entries fluctuate very widely, because many people were uncertain of their exact age, and in these circumstances tended to give a round number, with the result that age groups such as 40, 50, 45 and 55 are always over-represented. This does not present a great problem, as age data in the censuses was presented in five- and ten-year age groups (and the Life Tables constructed for the Presidency as a whole from the censuses used smoothing techniques to give a more accurate age distribution)³⁴. A more serious problem was the under- or over-representation of whole age groups. This applies particularly to girls between the ages of 5 and 15, who were often put in a higher age group if they were married, which makes it difficult to use this data for analysis of the structure of the population. It also seems likely, that if under-enumeration of women occurred in the decennial censuses, it was in this age group that the weakness occurred. However, it is difficult to prove that under-enumeration of women occurred in Ratnagiri after the 1850s, because of the distortion to the sex ratio caused by male emigration.

In conclusion, it appears that there were no major improvements in the methods of census taking between the late eighteenth century and 1851, though the greater interest shown by the British government in the collection of statistics in the 1840s may have led to some slight improvements in the quality of the data during that period. However, it is clear that there was a major improvement in the method of census taking introduced in 1872, notably the collection of proper household returns, and the attempt to conduct a proper simultaneous census of the whole Presidency. There was also a further improvement in the methods of census taking between 1881 and 1891, after which procedure became more standardised. It is generally considered that an inaccurate census is more likely to lead to under-enumeration rather than over-enumeration. Whole villages can easily be overlooked in remote areas; outlying houses are easily missed in villages like those in Ratnagiri, where houses are widely scattered, rather than contained within village walls; and householders may omit to mention all the women and young children in the family unless closely questioned. Moreover in India, where censuses were traditionally associated with

the imposition of taxes, there was always a danger of deliberate understatement of population.³⁵ Over-enumeration is only likely to occur when population estimates are based purely on guess work, or where a large proportion of the population have occupations which involve long absences from home, such as fishermen, sailors or seasonal migrants, since there is always a possibility that these people could be counted twice.

On balance, it seems that under-enumeration is the greater danger. This has led to the suggestion that the apparently high growth rates in some areas of India in the nineteenth century are due to gradually improving quality of enumeration.³⁶ If this argument were to be applied to Ratnagiri, it seems that the only period when a high growth rate could be attributed to an improvement in the census taking methods is between 1855 and 1872, and between 1881 and 1891. However, it is also possible that government interest in the collection of statistics may have influenced officials' enthusiasm for the task, and the consequent quality of the statistics. As long as household or population data was connected with the raising of tax, government was likely to pressure officials to obtain full returns. Therefore up to 1833, when the last British house tax survey was undertaken, the quality of data is likely to have remained the same, especially as there were apparently no changes in the methods of obtaining information. After the end of the house tax collection, however, in the series of population statistics which exist for the period 1833 and 1842, it seems likely that the quality of the data declined, as there was little apparent point in collecting them, and one might expect to find an increase in inaccuracy, and poor enumeration during this period. It could be argued, therefore, that high growth rates for the period 1842-1846 could reflect a decline in enthusiasm for the collection of data in the period 1833-42. This argument cannot be used, however, to explain any rises in population between 1833 and 1846, since both the method of census taking, and the official motivation to provide good statistics appear to have been similar at both periods.

III Demographic change in Ratnagiri: the evidence

A detailed examination of the censuses and other data on population in Ratnagiri district from the late eighteenth century indicates, firstly, that there was a rapid growth in the population of the district in the mid eighteenth century. This conclusion is very tentative, as it is based on the house tax records of only 12 villages in Sangameshwar *taluka* (see Appendix I). The house tax records show an average annual growth rate of households of 2% p.a. between 1780 and 1790 (see Table 3.2), some of which may have been caused by immigration but which nonetheless suggests rising birth rates or lower death rates in the preceding period resulting in a more rapid rate of household formation.

This period of growth was followed by a period of crisis in the 1790s of unquantifiable duration. Evidence from the Peshwa's records indicates that there were famines in the district in 1792 and 1802, and during the first years of British rule there was also a near famine in 1824.³⁷ The evidence from the 12 villages in Sangameshwar shows that growth rates were apparently much lower during the period 1790-1830 than previously, with an average annual growth rate in the number of households of 0.04% p.a. The impact of the famine of 1792 can be detected from the records of two other villages, Ujgaon and Wandri, which unlike the others have house tax records dated 1796 (see Table 1.1). Whereas the 12 villages documented in Table 3.2 which have house tax records dated 1790 all show an increasing, or stable, population from the previous house tax survey (made in approx. 1780), Ujgaon and Wandri, with house tax records dated after the famine, both show a drop in the number of households from the previous survey. Further evidence is provided by examining the reasons given in the house tax records for the increase and decrease of households. Only four of the house tax records for Sangameshwar *taluka* give detailed information of this kind. As can be seen from Table 1.1, in Ragaon and Dingni, which were surveyed in 1790, households only disappeared because of emigration while in Ujgaon and Wandri, which were surveyed in 1796, 18 households which had been counted in the previous survey had disappeared through death. These instances of death eliminating

whole households, moreover, appear to have occurred mainly in the lower castes.

After this period of crisis in the late eighteenth and early nineteenth centuries, the rate of population growth in Ratnagiri appears to have increased between 1820 and 1842. There are particular problems with this data; the 1820 census covered Kolaba as well as Ratnagiri, and therefore any figure for Ratnagiri must be an estimate, and it has already been explained that the statistics for the late 1830s and early 1840s may have suffered after the suspension of the House Tax survey. The data appear, however, to suggest average annual growth rates of between 0.4% and 0.7%, which is a feasible growth rate for a pre-industrial society, being within the range of average annual rates of population growth found in Western Europe in the sixteenth century.³⁸ From 1842, however, the growth rate appears to be much more rapid. The rapid rise in the growth rate between 1841/2 and 1845 can probably be partly accounted for by the decline in the quality of the statistics after the ending of the house tax survey in 1837, causing a severe underestimation in 1841/2. The average annual growth rate of 1.23% between 1846 and 1851, however, cannot be explained by improved enumeration, as both surveys appear to have been taken in the same manner.

Some confirmation of the validity of the growth rates indicated by these censuses is provided by an analysis of the age structure of the child population, and the relative sizes of the child and adult population, over four censuses in the nineteenth century for which such data are available: the 1855 census of just 30 villages in Ratnagiri *taluka*, and the decennial censuses of Ratnagiri district for 1881, 1891 and 1901 (see Table 3.3A and 3B). These data highlight clearly the periods of distress in Ratnagiri in the poor harvests of the late 1870s and late 1890s, by showing that there was a drop in numbers of the vulnerable under-five age group at these times. The effect of the poor harvests of the late 1870s on the cohort born in 1876-81, and also on that born 1881-6, can be seen in the numbers of children aged 5-10 and 10-15 in 1891. A comparison can be made between the data from these decennial censuses and that from the 1855 census of 30 villages in Ratnagiri *taluka*; data on children under 15

are provided in these censuses in five-year age groups, and this can give some indication of the trends in population in the 15 years before the censuses. From the 1855 census, it can be deduced that population growth rates in Ratnagiri during the period 1840-55 were likely to have been at their lowest in the earlier years, in 1840-45. Because the ratio of male children aged 10-15 to women in the 1855 census approximates to that in the 1891 census, this suggests that demographic conditions may have been similar in 1840-45, when those children were born, to those in 1876-81, and average annual population growth rates during the period 1840-45 were probably therefore similar to those in 1876-81. The decennial census does not provide information on population in between censuses, but the overall growth rate of population between 1872 to 1881 in Ratnagiri (including emigrants to Bombay in the total) was an average of 0.48% p.a.; the growth rate of population for 1876-81 is unlikely to have exceeded this, as it was a period of bad harvests and agrarian distress.

If average population growth between 1840 and 1845 is unlikely to have exceeded 0.48% p.a. then the census of 1841/2 must therefore have underestimated population seriously, and so exaggerated the growth rate between 1841/2 and 1845 (see Table 3.1). On the other hand, the data in Tables 3.3A and B suggest that in the period 1845-55 the censuses of the district may have been more accurate in recording high rates of population growth. In 1855, the number of male children aged 5-10 and aged 0-5 per 100 married women was higher than in any of the later censuses, and though the proportion of children aged 5-10 in 1855 was similar to later censuses, the proportion of under-fives was much higher in 1855. This suggests that birth rates were higher, or child and infant death rates were lower, in the period 1845-55 than at any time between 1871-1901. There is also another indicator that death rates were lower in 1845-55, if a comparison is made of the proportion of widows in the population. In 1855 the number of widows per house was similar to that in 1891, and lower than the number in 1881 and 1901. This suggests that growth rates during the period 1845-55 were at least as high as those during the 1880s, when population grew at an average rate of 1.6% p.a (if emigrants are included). The growth rates shown between the censuses of 1846 and

1851 may well therefore be correct, though the 1855 figures, which are of dubious origin and not apparently based on a census such as that of 1846 and 1851, may well be an underestimate.

The period between 1855 and 1872, a vitally important time in Ratnagiri's population history, is unfortunately lacking in census data. A comparison of the censuses in 1855 and 1872 suggest that the average annual rate of population growth was 2.4%. It is not impossible for a country to sustain such a rate of growth before the advent of modern medicine (the British colony of Malaya sustained a similar rate of growth from 1900-1950)³⁹, but it is certainly unusual. As this period of rapid growth coincides with the introduction of the all-India decennial census in 1872, with a significant improvement in the method of census taking, it seems probable that some of this increase can be attributed to under-enumeration in the earlier censuses.

Though there are no censuses of Ratnagiri between 1855 and 1872, some estimate of the population of the district may be obtained by using the 1864 census of Bombay city.⁴⁰ This census shows that there were 111,478 people born in Ratnagiri living in Bombay in that year, so if some indication can be obtained of the percentage of the population of Ratnagiri living in Bombay at the time, the population of Ratnagiri district itself can be estimated. Data from the later nineteenth century censuses show that 5.3% of the population of Ratnagiri (including emigrants to Bombay)⁴¹ were living in Bombay in 1872, 11.2% in 1881, 12.8% in 1891 and 11.1% in 1901. It seems unlikely, in view of these figures, that the percentage of the population of Ratnagiri district living in Bombay in 1864 would have exceeded 13%, which would make the population of Ratnagiri in 1864, 746,045 at the very least. On the other hand, as Bombay was in 1864 in the middle of the cotton boom, with a high demand for labour, it is unlikely that the percentage of the population of Ratnagiri in Bombay would have been less than that in 1881 or 1901, i.e. 11 %, which would give Ratnagiri a maximum population in 1864 of 901,958. This would apparently show that Ratnagiri's population was growing rapidly between 1864 and 1872. However, growth rates were inflated, because the slump in Bombay in 1865 caused a large number of migrants to

return home to Ratnagiri. If the number of migrants from Ratnagiri in Bombay is added to the population of Ratnagiri, the growth rate between 1864 and 1872 was between 0.8% and 3.2% p.a. which even at the lowest estimate of 0.8% is a higher rate of growth than that of the 1820s and 1830s, and indeed for most decades from 1872 up to World War II. This evidence of rapid population growth from 1864-72 is reinforced by the data on children's ages (see Table 3.3A and B), which shows the relatively high percentage of children aged 10-15 in 1881 (born in 1866-71), and the very high numbers of children under 1 in 1872 (see Table 3.3D).

For the period 1872-1921, the more detailed information from the decennial censuses presents a clear pattern of population growth, which is reinforced by the census data on population structure. Firstly, during the period 1872-1881, the average annual rate of population growth (including emigrants to Bombay) was 0.48%, but the evidence on age structure of the population suggests that most of this growth occurred between 1872 and 1876. From the data in Table 3.3A and B it can be seen that the ratio of children aged 5-10 to women in 1881 (i.e. children born in 1871-76) was average, while the ratio of children aged 10-15 to women in 1891 (i.e. children born in 1876-81) and of children aged 0-5 in 1881, was below the average for the late nineteenth century. Similarly the number of children under 1 in 1881 was low compared to other censuses where this information was available. This accords well with other sources which show that there was a period of poor harvests and high prices in the late 1870s, though Ratnagiri escaped the worst of the famine which hit the Deccan in these years.⁴² The impact of this crisis on the birth rate/infant mortality rate is illustrated dramatically in Fig 1A, where it can be seen that the 0-5 age group in 1881 is actually smaller than the 5-10 age group. The data on widows (see Table 3.3C) also highlights the rise in the adult death rate in 1881.

Between 1881 and 1891, the average annual rate of population growth (including emigrants to Bombay), was 1.56%, and the lower death rate (or possible higher birth rate) can be seen in the high proportion of children under 5 in 1891 and the low proportion of widows per household. Between 1891 and 1901 the rate of growth dropped to 0.2%

per year (including emigrants to Bombay); the data in Table 3.3A shows that this reflects a demographic crisis in the late 1890s, which was a period of poor harvests and plague. From 1901 to 1911 population growth rates revived, with average increases of 0.8% p.a., while from 1911 to 1921 the population of Ratnagiri with emigrants to Bombay dropped by an average of 0.2% a year, which is perhaps not surprising in a decade which included the great influenza epidemic, as well as soaring food prices.

In conclusion, it appears from an examination of the census data, that there is no evidence to suggest that demographic change *per se* led to the onset of emigration from Ratnagiri. Population grew at a slow rate in the first decades of the nineteenth century, and only began its very rapid rise in the late 1840s, shortly after seasonal emigration began, while one would have expected rising population to precede emigration by at least a decade. Indeed, if there is any causal connection between emigration and population growth in Ratnagiri, the evidence would suggest that emigration stimulated population growth rather than the opposite.

IV Factors affecting fertility and mortality in Ratnagiri

To further clarify the relationship between demographic change and emigration from Ratnagiri it seems desirable to examine the reasons for the demographic changes. There are a number of possible explanatory models of population change which might be relevant to conditions in Ratnagiri district in the nineteenth century. Firstly, if Ratnagiri is assumed to have been a pre-modern, agrarian society, climatic conditions could be seen as a major determinant of population change, since periods of good harvests and periods of famine can be seen to be closely connected to climatic conditions. Some historians have also seen long-term cycles in the spread of epidemic diseases in pre-modern populations, (the impact of Bubonic plague on Europe in the fourteenth-seventeenth centuries being the most dramatic example),⁴³ as being a major factor. Or alternatively, cycles of growth and decline in pre-modern rural populations can be seen as part of a Malthusian

cycle in which population grows rapidly up to the point where pressure on land becomes too great and 'over-population' leads to famine and attendant epidemics, which reduces the population. Once the pressure on land is reduced, incomes again rise and population is able to repeat the cycle of growth and decline.⁴⁴ If one of these models, or a combination of them, is assumed to apply to Ratnagiri in the nineteenth century, then the slow growth of population in the late eighteenth and early nineteenth centuries, the rapid rise in population during the mid nineteenth century, and the rather slower growth rates in the last decades of the century, must be seen as a continuation of a pattern of population change basically similar to that of the previous century, and largely unaffected by the political and economic changes which occurred in India in the nineteenth century.

On the other hand, a second possible model of population change could see the rise in population during the nineteenth century as caused by fundamental changes linked to the impact of the colonial and world economy on the district and surrounding areas. The most important of these changes would be the reduction of crisis mortality as a result of the improved availability of food caused by improvements in transport by road, rail and sea, and by the extension of the market economy, leading to more stable prices and more rapid movement of food into famine districts.⁴⁵ Another possibility, less discussed than the first, could see medical improvements introduced by the colonial government, most notably smallpox vaccination and the practice of quarantine, as having a major impact on death rates.⁴⁶

A further alternative model of population growth in Ratnagiri could see this as stemming, not from a reduction in the death rate, but from an increase in the birth rate. On the one hand, improvements in agriculture such as the spread of rice cultivation in the district could, as in the Malthusian model, lead to increases in population as the possibility of producing more food from a smaller plot encourages earlier marriage and larger families.⁴⁷ On the other hand, the rising demand for labour in the colonial economy and particularly, in the case of Ratnagiri, in Bombay, could encourage couples to have larger

families, secure in the knowledge that, even if they could not be supported in the village, they could find paid employment in the city.⁴⁹ A third possibility, discussed in the debates on proto-industrialisation in Europe and on the demographic transition in the Third World, is that a large family is seen as a strategy for the peasant and artisan family, which can only survive by developing a large family labour force.⁴⁹

Clearly then, some understanding of the reasons for the changing rates of population growth in Ratnagiri in the nineteenth and early twentieth centuries can elucidate the relationship between demographic change and emigration. In a wider sense, they provide an insight into the nature of social and economic change in Ratnagiri; more specifically, they provide evidence as to the importance of demographic change in explaining emigration. Was the increase in population in the mid nineteenth century related to a marked reduction in epidemic disease or crop failure?. If so, it is likely that chance factors initiated a train of events leading to rising population, rising pressure on land, and so emigration. If not, then the rise in population must be attributable to some other factors causing rising living standards and thus reducing death rates and raising birth rates, or else it must result from the demand for labour stimulating birth rates. In the rest of this chapter these possibilities will be explored by looking first at the impact of disease, and then of famine, on mortality rates in the district, and lastly at factors influencing the birth rate. There are difficulties, though, in isolating the effect of these different factors on demographic trends, since the level of nutrition can affect the death rate not only from starvation and diseases obviously linked to nutrition, but also from diseases such as malaria and T.B.,⁵⁰ while the birth rate is affected not only by the age at marriage and family limitation within marriage, but also by the health of mothers, and the impact of particular diseases such as malaria on fertility.⁵¹

V Disease and mortality rates in Ratnagiri

In view of the inadequacy of the data available it is not possible to say for certain whether mortality from disease increased or declined over the century. Data for examining causes of death are very inadequate. Registration of births and deaths, including cause of death, was introduced in India in the mid nineteenth century, but registration was very patchy. For example, registration of deaths was introduced in Bombay city in 1848 ⁵² under the supervision of the Public Health Officer, and the statistics were published in the annual Mortuary Reports. Statistics on births and deaths were also published in the first census of the Presidency in 1846 and 1851, and in the General Reports on the Administration of the Presidency from 1875,⁵³ and on a divisional basis in the Censuses from 1901.⁵⁴ In the cities, registration of deaths was probably more reliable than registration of births, since bodies had to be cremated in a cemetery, and a policeman was stationed at the gates to record the names and ages of the dead and cause of death.⁵⁵ In the rural areas, registration depended on the co-operation of the village authorities. In Ratnagiri this was unlikely to have been forthcoming, since there were few paid village officers, and the *khots* who were expected to do such work were naturally unenthusiastic. As a result it was generally believed that births and deaths in Ratnagiri were under-registered to a greater extent than elsewhere.⁵⁶ It is possible to estimate death rates from the census data if there is a stable population, but in Ratnagiri the high rate of emigration makes this difficult to do. Estimating the birth rate from the censuses also faces problems in that the birth rate has to be calculated from the data on the number of children aged 1 and under in the censuses, and the accuracy of this calculation depends on the accuracy of data on infant mortality. Unfortunately, infant deaths were even less well recorded by the registration system than adult deaths,⁵⁷ and so many calculations rely on modern infant mortality data and model life tables, or use small, unrepresentative samples as the basis for their calculations.⁵⁸

Even though the data on the birth rate is so poor, the data on the death rate and causes of death is clearly rather better, and the

evidence available suggests that mortality from certain diseases, notably cholera, plague, malaria and T.B., increased over the century in Ratnagiri district. But whether these diseases were simply replacing other ones as major causes of death, or actually led to an increase in the death rate from disease it is difficult to determine. The most that can be said is that mortality from disease is unlikely to have been declining over the nineteenth and early twentieth centuries, and therefore any rise in population must be related in some way to improved standards of nutrition.

i) Malaria

It is difficult to be precise about the spread of malaria in the nineteenth century because it was not separately listed as a cause of death but included under 'fever', which included typhoid and some T.B. and probably many other diseases difficult to diagnose. Deaths from 'fever' represented 54% of the deaths in Ratnagiri district from 1874-9, and 52% of deaths from 1889-94,⁵⁹ but only a comparatively small proportion probably were deaths from malaria, since Ratnagiri was not regarded as a particularly malarious area.⁶⁰ However, there is evidence that malaria was spreading in Ratnagiri district from about 1840, when reports begin to comment on the fact that the silting up of rivers (caused by intensification of cultivation) was leading to an increase in 'fever' on parts of the coast near the river estuaries. The coast line of Deogad and Rajapur *talukas*, and of Mandangad *taluka*, particularly round Bankot, were especially affected; and so bad was the 'fever' at Bankot, that it led to the virtual depopulation of the town in ten years.⁶¹

ii) Plague

Though there were some minor outbreaks earlier in the century, major plague epidemics did not occur in India until the last years of the nineteenth century, and first appeared in Bombay Presidency in 1896, causing serious mortality for three years.⁶² The plague was clearly brought to Ratnagiri from Bombay, since most of the outbreaks were on the coast, near the ports connected by steamer to Bombay.⁶³ However, Ratnagiri was not seriously affected by the plague epidemic, plague deaths only accounting for 1.7% of all deaths in Ratnagiri in 1898 and 2.6% in 1899, and only 0.8% of all deaths between 1904 and 1914.⁶⁴

iii) Tuberculosis

T.B. was probably also spreading from Bombay into country areas such as Ratnagiri in the nineteenth century, though the evidence is slight. In the early nineteenth century T.B. was probably not known in the rural areas,⁶⁵ but by the mid twentieth century it was well entrenched in the district, brought in by the mill workers returning from Bombay.⁶⁶

iv) Cholera

Large scale cholera epidemics were also new to India in the nineteenth century, the first being in 1817/18.⁶⁷ The first recorded outbreak in Ratnagiri was in 1820⁶⁸, but in the next ten years all the recorded outbreaks were in the northern talukas which became part of Thana after 1830. This suggests that this disease also came to Ratnagiri from Bombay, since the northern areas had closer contacts with the city, especially through the fishing community, among whom cholera had become endemic by the 1850s.⁶⁹ In the 1830s the disease appears to have established a hold in Ratnagiri district, however, and there are regular reports of outbreaks between 1833 and 1856 and again, after a gap in the records, between 1866 and 1878.⁷⁰ Most of these outbreaks, however, seem to have been localised, and to have affected only a few villages at a time, and it seems likely that the poor land communications in the district helped to reduce the incidence of serious epidemics in the earlier part of the century. However, the disease obviously brought a significant new health risk to the district as the century progressed; in 1874-9 for instance, several epidemics raised cholera mortality to 4.9% of the total deaths registered in Ratnagiri,⁷¹ and though the death rate from cholera dropped in the late 1880s (0.7% of all deaths from 1888-93 were from cholera), it rose during the epidemic of 1894, when it accounted for 8% of all deaths in Ratnagiri in that year; though by 1904-14 cholera deaths had dropped again to 0.5% of total deaths in the district.⁷²

v) Smallpox

The spread of cholera, T.B., malaria and plague in nineteenth century Ratnagiri must have raised the death rate from epidemic disease, especially as no preventative measures and few curative ones were available in the nineteenth century. However, there was one major

epidemic disease, already well established in India before the British came, for which effective preventative treatment was available in the nineteenth century and before: smallpox. The incidence of the disease in nineteenth and early twentieth century Ratnagiri depends largely, therefore, on the success or failure of these measures, inoculation and vaccination.

The practice of inoculation against smallpox probably originated in China. It was introduced to Britain from Turkey in 1721, but initial enthusiasm waned because the methods used by English inoculators resulted in a high mortality rate from the inoculation. However in the 1760s some doctors returned to the safer Turkish practice, and as the mortality rate from inoculation dropped, it became increasingly popular, and there were mass inoculations, especially in country districts, often performed by amateurs. Jenner's paper in 1798 on the effectiveness of cowpox inoculation (vaccination) as a protection against smallpox, led to a swing in favour of vaccination by the British medical establishment, and a growing hostility to inoculation. Inoculation was said to be less safe than vaccination, and to spread smallpox, (though this latter is debateable), and inoculation was therefore made illegal in Britain in 1840.⁷³

Vaccination was introduced to India soon after its adoption in Britain, but the number of vaccinations was initially small - in 1820 in all Bombay Presidency only 23,494 people were vaccinated, rising to only 59,393 by 1840.⁷⁴ The establishments were small as well - in the Konkan there were only seven vaccinators at the beginning of 1845.⁷⁵ However, from 1851 the government began to take a more active interest in the subject, and doubled the establishments (which in Ratnagiri by 1854/5 consisted of 18 vaccinators)⁷⁶, published regular vaccination reports from 1854/5, and made a strenuous effort to increase the rate of vaccination.⁷⁷ As a result, vaccinations in the Presidency increased rapidly. In the Konkan division, vaccinations increased from 13,279 in 1849/50, to 33,454 in 1854.⁷⁸ By 1889/90, the number of vaccinations in Ratnagiri district alone was 34,063, and about 4/5 of the children under one in the district were said to have been vaccinated.⁷⁹

From this evidence, one might assume that death rates from smallpox would have shown a steady decline from the mid nineteenth century in Ratnagiri. However, this does not seem to have been the case. Though the records may simply be inadequate, there is no report of an epidemic in Ratnagiri before 1844/5, when the Collector commented that the disease had got worse of recent years.⁹⁰ After this, there are regular mentions outbreaks, the next epidemic being in 1854/5, then 1858, 1869/70, 1873, 1876/7 and 1883/4.⁹¹ If these records present a true picture of the situation, then smallpox deaths can certainly not be said to have decreased during the years of rapid population rise in Ratnagiri from the 1840s-1860s, when the vaccination programme was undergoing its major expansion. This may seem surprising, but one possible explanation is that there was already in Ratnagiri a well established system of inoculation against smallpox before the arrival of the British, which was prematurely stamped out by the British before they were able to replace it effectively with vaccination.

Inoculation against smallpox was well known in India by the eighteenth century, but appears to have been extensively adopted only in a few areas, most notably in Bengal, the Konkan coast, and parts of the Himalayas and Rajputana.⁹² By the mid nineteenth century the Konkan districts of Ratnagiri and Thana were the only areas of Bombay Presidency where inoculation was extensively practised.⁹³ The evidence suggests that a large proportion of the population of Ratnagiri was protected by traditional inoculation in the first half of the nineteenth century. Inoculators, known as *tikedars* inoculated patients with human smallpox lymph by inserting the lymph into a cut in the forearm.⁹⁴ Inoculators usually came from the *Hajam* (barber), *Kumbhar* (potter) or *Dhangar* (herdsman) caste ⁹⁵, and it may have been an hereditary occupation in certain families ⁹⁶. The practice of having children inoculated appears to have been firmly established, especially among the higher castes, since they seem to have offered more strenuous resistance to the introduction of vaccination than any other group.⁹⁷ Statistics on vaccination tend to support the view that inoculation was widespread in Ratnagiri in the earlier nineteenth century. The census of 30 villages in Ratnagiri conducted in 1855 showed that 54.7% of the population had been 'vaccinated', 50.5% had

had smallpox, and 14.5% were unprotected.⁸⁸ It seems most unlikely that 54.7% of the population had actually been vaccinated, since the vaccination programme had only recently expanded, and vaccination reached about 3% of the population of Ratnagiri in 1850-55 and under 1% in preceding years;⁸⁹ so in all probability many of those protected had been inoculated. The prevalence of inoculation in the district was also noted by Col. Wingate when he toured the area in 1849. His informants told him that nearly all the children in the Konkan were inoculated, and that vaccination was considered ineffective. He himself noted that the population appeared to be less pock-marked than that of the Deccan.⁹⁰

The British authorities were determined to stamp out native inoculation, however, being convinced that it spread smallpox, and that the people clung to it from religious superstition and ignorance.⁹¹ The Collector attempted to ban inoculation in 1837, and the government ordered suppression of inoculation in 1854/5.⁹² In 1858/9 the Vaccination Superintendant claimed that inoculation had been eliminated in the Konkan.⁹³ However, the British faith in the superiority of their own vaccination programme in the mid nineteenth century was misplaced. Though vaccination was probably safer than inoculation, it was not as effective, as it only lasted for a short period, making revaccination after five to ten years essential, in contrast to inoculation which was generally effective for much longer.⁹⁴ Though by the 1880s the British vaccination programme was probably providing a fairly effective protection for young children, who were the most vulnerable to the disease, their revaccination programme did not keep pace, and many older children and adults must have been left unprotected even in the late years of the century.⁹⁵

The existence of an effective programme of vaccination or inoculation against smallpox is bound to have a considerable impact on the death rate in any society where smallpox is prevalent.⁹⁶ It is likely that, as in eighteenth century Britain, anyone in nineteenth century Ratnagiri who was not protected by inoculation or vaccination would have suffered from smallpox at some time in their lives. The census of 1855 in Ratnagiri showed that of the 45% of the population which had not been inoculated, only 15% had escaped the disease.⁹⁷ It

seems probable, therefore, that the indigenous system of inoculation in the earlier nineteenth century, and the British system of vaccination as established by the late nineteenth century, had a considerable effect in keeping down the death rate from smallpox in Ratnagiri during the nineteenth and early twentieth centuries. In Bombay city, between 1857 and 1866 deaths from smallpox fluctuated between 2% and 11% of recorded deaths, which can be compared with the percentage of smallpox deaths to total deaths in early eighteenth century London before the introduction of inoculation, which was 7.6%.⁹⁸ Though the registration of deaths in Ratnagiri was less reliable than in Bombay, smallpox is likely to have been relatively well reported; the percentage of deaths from smallpox in Ratnagiri from 1874-9 was 2.7% of recorded deaths, and from 1888-92 1%, while from 1904-14 it was 0.9%;⁹⁹ this does suggest that inoculation and vaccination were having some effect in reducing deaths from smallpox.¹⁰⁰ However, it also seems likely that in the mid nineteenth century the death rate from smallpox may have risen, as the British attempted to stamp out inoculation before their own system was ready to replace it, especially as at this time the population was becoming increasingly vulnerable to epidemic disease brought in by migrants to Bombay.

vi Conclusion The evidence suggests that mortality from epidemic diseases was increasing in nineteenth century Ratnagiri, with the exception of smallpox, where the vaccination programme in the late nineteenth century brought down death rates from the disease, though Western medical intervention had actually led to an increase in the disease earlier in the century. Therefore it cannot be argued that the rising population in Ratnagiri during the nineteenth century was related to reduction in epidemic disease, either by chance or by the introduction of Western medicine. Rather, contacts with the West through migration to Bombay city seem to have increased mortality from disease, as epidemics spread from the city to the rural areas.

It is therefore likely that any increase in the rate of population growth in Ratnagiri in the nineteenth and early twentieth centuries was caused by improvements in the levels of nutrition of the population, reducing death rates from famine and malnutrition and increasing birth rates as the health of mothers improved. Of course

higher levels of nutrition also reduce mortality from epidemic disease, so the two cannot be completely separated. If rising nutritional levels in nineteenth century Ratnagiri can account for the rising population during that time, it is necessary to determine the reasons for the improving nutritional status of the population in order to explain the population rise and its relationship to the process of migration. If the improved nutrition of the population resulted from a long term reduction in crisis mortality, it should be possible to see this as linked to improvements in transport and the development of a market economy in Ratnagiri under the impact of colonialism. Migration can then be seen as in part as an outcome of this process. If, on the other hand, improved nutrition in the district was a consequence of rising real incomes, then the initial wave of migration from the district might itself have set in motion a chain reaction of rising incomes, improved nutrition and consequent rising population, leading to a need to carry on the pattern of migration in subsequent generations in order to maintain standards of nutrition.

VI Famine and food shortages in Ratnagiri

In any pre-modern agrarian society food supply to the population is determined primarily by the state of the harvest, which will fluctuate considerably from year to year even in normal conditions, and will periodically fail for a period of years, bringing a risk of famine. The frequency of such famines, though determined partly by climatic fluctuations, can also be related to war and political upheaval which disrupts normal agricultural activities. Famine can also be exacerbated by a failure of the market, when food available in one area is not moved to an area of need because of transport problems, tariffs, or other distortions in the market.¹⁰¹ Famine deaths can also be seen primarily as a failure of exchange entitlements¹⁰², that is, of the ability of the population, or sections of the population, to purchase grain if they are not able to produce sufficient for their own consumption during a period of crisis. This ability to purchase grain in turn depends not only on the price of grain relative to wages

and to the prices of other agricultural products, but also on the distribution of land and wealth in the community.

Ratnagiri district was unusual in Western India, in that it was not apparently very vulnerable to famine, having a high and reliable rainfall.¹⁰³ This made possible the rainfed cultivation of rice, and the district was in consequence able to sustain a high population per cultivable acre, especially on the coast which was more suitable for rice cultivation.¹⁰⁴ Nonetheless, there do appear to have been two serious famines in the area in the late eighteenth and early nineteenth centuries. There were severe famines in 1790-92, when the Peshwa's government remitted 32% of the revenue in Ratnagiri *taluka* in 1791 and 12% in 1792, and 64% of the revenue in the neighbouring *talukas* to the north in 1790, while some *talukas* in what later became Kolaba district, particularly Sanksi and Underi, were also very badly affected.¹⁰⁵ The effects of this famine are also clearly visible in the house tax records for *tarf* Sangameshwar in Sangameshwar *taluka*. In 1802/3 the famine again badly affected Ratnagiri, where one third of the revenue was remitted and many deaths and desertions of villages were said to have occurred.¹⁰⁶ Kolaba, the Gujerat and the Deccan were also affected, and there was another famine in 1812 in the Deccan and Gujerat, which does not, however, appear to have affected Ratnagiri seriously.¹⁰⁷

In contrast to this, British officials believed that no famines had occurred in Ratnagiri district under British rule in the nineteenth and early twentieth centuries. The Collector of Ratnagiri, in a report in 1862 ¹⁰⁸ noted only two years of 'shortage' from the 1820s to the 1860s, and no famine. In the reports on famines in the Presidency in 1876-9, Ratnagiri is not included as a 'famine district' ¹⁰⁹, nor was it regarded as having suffered from the famine which affected most of the Presidency in 1899-1900. It could be argued, therefore, that the absence of famine in the nineteenth and early twentieth centuries can explain the rapidly rising population in the district and be seen as a cause of migration. If so, the question arises whether this absence of famine was caused by unusually favourable climatic conditions, or whether Ratnagiri was entering early on the transition from 'famine' to 'food crisis', which occurred in Western Europe in the eighteenth

century, and which M. McAlpin sees as occurring in Western India in the early twentieth century.¹¹⁰

The distinction between a 'famine' and a 'food crisis' turns on the deaths caused - in a food crisis, the harvests fail and prices soar, but it is only in a famine that there is any obvious mortality from starvation. In Ratnagiri in the nineteenth century there were certainly a number of 'food crises', with crop losses on a similar scale to those which caused the famines in the late eighteenth century. Though the extent of the crop losses in famines under the *Peshwas* is not certain, the scale of the remissions given suggests that crop losses must have reached 75% of the crop in some areas in 1792 and 1802.¹¹¹ Crop losses of this magnitude did occur also under the British. In 1823/4 remissions of 75% and more of the crop on hill land, and between 33% and 50% on rice land were given for crop failures which were almost total on hill land, though not so bad on rice land; the scale of the disaster is indicated by the fact that the government was prepared to give remissions to the *khots*, and to set up relief works.¹¹² In 1838, 25% of the rice and 75% of the hill crop was lost, after a series of poor harvests,¹¹³ and in 1875-7, several bad harvests were followed by losses of between 25% and 38% of the rice crop, and from 12% to 75% of the hill crop¹¹⁴. In 1896/7 serious crop losses also occurred, and in 1899/1900 there was a poor harvest, with the rainfall in the Konkan well below average, though the Konkan was not considered to have suffered from the famine which affected the Deccan in those years.¹¹⁵

The data on crop losses under British rule in the nineteenth century do suggest, therefore, that the freedom from 'famine' in Ratnagiri during that time was not caused by any improvements in the weather from the late eighteenth century. It may be that the famine deaths in the late eighteenth century were greater than would normally have been expected for the scale of crop failure which occurred, perhaps as a result of unusual circumstances such as war disrupting normal cultivation and transport. Alternatively, it could be argued that improvements in transport and markets under the British, or the increased incomes brought in by emigration, had mitigated the effects of harvest failure in the nineteenth and early twentieth centuries.

It is difficult to argue that there were any dramatic improvements in trade and transport in nineteenth century Ratnagiri which might have made it easier to import grain in times of famine. With no railway and few made roads, transport was mainly by boat throughout the century. However, as Ratnagiri was well supplied with water transport, both by sea and river, it was easier to move grain in and out of the district than would have been the case in the Deccan, and water transport did improve over the century with the development of steamship services. Ratnagiri may have exported grain in the early nineteenth century¹¹⁶, but for most of the nineteenth century the district was an importer of food grains. Detailed data on grain imports are not available, though grain was being imported regularly into Ratnagiri from the early 1830s.¹¹⁷ Movement of grain was probably facilitated by the removal of transit duties between districts in 1837¹¹⁸ and there is some evidence that imports increased in the late 1840s and early 1850s, since from 1840 there is a sudden increase in references to grain imports into Ratnagiri in the Collectors' reports.¹¹⁹ It is impossible to give an accurate estimate on a regular basis of the amount of grain imported into the district and consumed there rather than re-exported, since accurate records were only kept of imports and exports by sea for the Sea Customs Department, and Collectors could only estimate imports and exports with the Deccan from information provided by local merchants.¹²⁰ Such an estimate for Deogad taluka,¹²¹ compiled from information given by the *mamlatdar* from records kept at the Phond Ghat by merchants, along with information from Sea Customs, shows that by 1887/8 net imports of grain for a population of 121,886, were 1,376,088 sers of rice in the husk and 1,482,352 sers of cleaned rice, enough to feed 10% of the population for a year.¹²² In the 1920s it was estimated that 25% of the grain requirements of Khed taluka were imported.¹²³ In the early nineteenth century, imports of grain to Ratnagiri would almost certainly have been higher than imports to the Deccan districts because of the difficulties of bulk transport overland. The development of the rail network transformed transport in the Deccan in the second half of the nineteenth century. But even after the completion of the rail network, the rather optimistic calculations of M. McAlpin show

that grain imports by rail to the Deccan in the first decades of the twentieth century were not much higher per head of population than grain imports to Ratnagiri in the 1880s.¹²⁴ Grain imports on this scale clearly had an impact on prices, and the comparative trends of grain prices in the Deccan and the Konkan in the nineteenth century tends to support this view, showing that grain prices were lower in the Konkan by the mid nineteenth century, and rose less rapidly than those inland in the second half of the nineteenth century.¹²⁵ Fig. 2 shows that from the early 1880s there was less annual variation in the prices of rice in Ratnagiri than in the earlier period, a trend which M. McAlpin has detected in prices of basic foods in the Deccan and which she attributes to the advent of the railways, clearly not a factor influencing rice prices in Ratnagiri.¹²⁶ However, the development of steamship services down the coast in the 1870s may have performed a similar function in Ratnagiri.

It does seem plausible to argue that imports of grain, facilitated by the network of water transport and the removal of transit duties, helped to reduce the impact of harvest failure in Ratnagiri during the nineteenth and early twentieth centuries, thus facilitating the rise in population. The evidence of the birth and death rates and the censuses does indeed suggest that in Ratnagiri the impact of food crises was less severe than in other areas. Birth and death rates were lower for the Konkan districts than for other areas of the Bombay Presidency from the late nineteenth century,¹²⁷ and the annual variations in birth and death rates were significantly less in the Konkan than in other areas of Western India.¹²⁸ However, this then raises the issue of exchange entitlements. It is not easy to determine who in Ratnagiri would have been in a position to buy grain in a district lacking in major exports or industries. While the *khots* and wealthier *dharekaris* would presumably have been able to purchase grain, (in average years they were selling or lending grain of their own),¹²⁹ the mass of the subsistence peasantry would have been unable to do so on a regular basis, without some source of cash income. It appears that most peasants would not in fact have had a cash income from working within the district, since by the end of the nineteenth century agricultural labourers were still only a small percentage of the population, and

most of them were paid partly in kind until the twentieth century.¹³⁰ This suggests the possibility that it was the earnings of migrants, and their remittances home to the district, which made it possible for the district to import grain on an increasing scale through the century. This was indeed the view of one British official in the early twentieth century.¹³¹ It is perhaps not a coincidence that references to grain imports to the district begin in the 1840s, at the same time as seasonal migration to Bombay became an established practice.

VII Birth rates and demographic change in Ratnagiri

Though the evidence appears to suggest that the increase in population in Ratnagiri during the nineteenth century may have resulted from rising food consumption, made possible by emigration, it is also conceivable that the demographic regime which developed in Ratnagiri over the nineteenth century mitigated the impact of harvest failure. It has already been noted that birth and death rates were low in Ratnagiri in the late nineteenth and early twentieth centuries as compared to other areas of Western India, in spite of the absence of a sizeable proportion of the young male population in Bombay. This could simply be a result of poor registration. It has also been suggested, however, that a different demographic regime may have operated in the Konkan from the rest of Western India.¹³² This would suggest that along with lower rates of death from disease and famine, the Konkan must have had lower birth rates, which may in these circumstances have been caused by some strategy of fertility control.

In nineteenth century India, as in other societies at that time, the means to control fertility were limited (traditional methods of contraception, though they undoubtedly existed, were not very effective), but nonetheless it would have been possible to control fertility quite considerably by raising the age at marriage, as can be seen from the European experience of the sixteenth and seventeenth centuries.¹³³ Other ways of restricting fertility include the practice of banning widow remarriage (only a high caste practice in the early nineteenth century, but becoming increasingly widespread with 'sanskritisation'), and raising the age at which children were weaned

(since women are generally unable to conceive while breast feeding). It does seem probable that some effective method of limiting fertility did operate in nineteenth century India.¹³⁴ Methods used in India in the 1960s included the practice of delaying the consummation of the marriage for some years¹³⁵, periods of abstinence connected with religious festivals or family illness, and also following the birth of a child, sometimes for up to two years, and abortion often by traditional means. As a result, the average birth interval for women married after 1941 was 33.47 months, and for women born before 1941 even higher, at 40-80 months.¹³⁶ However, data such as this are difficult to find for nineteenth century India. There is some evidence that children were weaned at about one year old in the mid nineteenth century, since the Vaccination Reports comment that parents were unwilling to bring their children to be vaccinated until they were weaned at the age of one.¹³⁷

Apart from this, the only data available on limitation of fertility relates to the age at marriage, and the proportion of the population ever married (see Table 3.4). It appears that in the late nineteenth century, the age at marriage of women in Ratnagiri may have been affected by periods of shortage and agrarian distress, since the percentage of women unmarried is lower in the age groups 10-20 in 1891 during a period of relative prosperity, than in 1881, or 1901, after periods of harvest failure. This relationship between marriage and food crisis appears to have come into operation almost automatically because in most cases the woman's family had to provide a dowry at marriage, which in times of crisis they would have been unable to do.¹³⁸ Though there was a slight drop in the percentage of unmarried women in all the quinquennial age groups from 10 to 40 in 1891 in Ratnagiri, there was a fairly steady increase in the percentage of women remaining unmarried from 1901 to 1931, particularly in the 10-14 age group, suggesting a rise in the age at marriage for women over that period. The pattern of marriage for men in Ratnagiri over this period is rather different, showing a steady rise in the age at marriage between 1881 and 1921, with the percentage of those under 30 remaining unmarried increasing, apart from a fall in 1931. A rise in the age at marriage of women would

probably have had the effect of lowering the birth rate, though as most of the change in Ratnagiri between 1901 and 1931 appears to have occurred in the under 20 age group, particularly in the 10-14 age group, whose marital fertility is likely to have been very low, the impact of the rising age at marriage of women in this case may not have been great; the effect of the rising age at marriage of men is more complex. It seems likely that these older men were now marrying relatively younger women, and as the age gap between husband and wife increased, so did the chance that the wife would be widowed long before her child bearing days were over, which would, of course, reduce her fertility.¹³⁹

Different criteria influenced the age at marriage of men from that of women, since there were no cultural or religious sanctions on men to marry at puberty as there were on women, and since women had to provide a dowry at marriage. It seems likely that the pattern of women's marriage between 1881 and 1901 in Ratnagiri would have been typical of the pattern for much of the nineteenth century, with marriage rates rising and falling in response to agrarian crises, influenced to a large extent by the ability of the wife's parents to provide a dowry. A different pattern appears to have been emerging in the early twentieth century, with the reduction in marriages in the 14-19 age group suggesting that changing cultural attitudes were affecting marriage customs (or at least making families reluctant to report marriages of young girls to the census authorities). The age at marriage of men may also reflect short term economic crises in Ratnagiri, since the husband or his family were expected to pay the not inconsiderable expenses of the wedding, but the changing age of male marriage is also likely to reflect more readily long term economic change, and not just short term crises. It seems probable that the high age at marriage for men was connected with patterns of circular migration, and the absence of many men age 15-25 in the city. Continuing patterns of circular migration of males may also have lowered the fertility rate through the absence of the husband. An apparently close relationship between rises and falls in the birth rate and rises and falls in the price of rice in Ratnagiri between 1872 and 1911, (closer than the relationship between the death rates

and the price of rice), could well be explained by the effects of migration;¹⁴⁰ during years of high food prices, husbands working in Bombay would be less able to afford visits home to Ratnagiri, and would be therefore less likely to conceive a child during that year. The effect of migration on fertility rates is a very complex issue.¹⁴¹ However, the fact that the highest number of children under one per woman in Ratnagiri in the nineteenth century is recorded for 1872, when many migrants had returned home after the slump in Bombay and migration rates were at their lowest for the later nineteenth century does suggest that large scale migration led to a drop in the birth rate, while at the same time raising consumption per head, which may have reduced mortality, particularly in the late nineteenth century agrarian crises.

VIII Conclusion.

The evidence presented in this chapter suggests that the relationship between demographic change and migration in nineteenth and early twentieth century Ratnagiri was a complex one. There is certainly no evidence of a straightforward link between food crises and migration, since migration rates rose steadily between 1872 and 1921 regardless of agrarian crises (and actually dropped between 1891 and 1901, a decade which included harvest failures in 1896/7 and 1899/1900). There also seems little evidence to suggest that rising population led directly to the onset of emigration in the mid nineteenth century, since the rapid rise in population in Ratnagiri only began in the late 1840s, when a pattern of seasonal labour migration to Bombay was already established.

An understanding of the causes of the rise in population in Ratnagiri can help to provide some explanation of the connection between migration and demographic change in the district. It seems clear from the evidence presented in this chapter that declining death rates from epidemic disease were not a contributory factor in the nineteenth century population rise in Ratnagiri, until the impact of the smallpox vaccination programme in the last decade of the nineteenth century, and that the rising population must therefore be

attributed in some way to improved levels of nutrition. Rising levels of nutrition in Ratnagiri in the nineteenth century could not, it seems, be attributed simply to temporary improvements in weather conditions, since harvest failures continued to occur in Ratnagiri in the nineteenth and early twentieth century, apparently on the scale of the late eighteenth century, in 1824/5, 1876/9 and 1896/7. The evidence of the price statistics suggests, however, that by the 1880s the impact of harvest failure was less severe; instead the levels of grain imports into the district from the 1840s reduced price fluctuations in times of poor harvests, thus enabling nutritional levels in the district to rise. However, since Ratnagiri had no lucrative cash crop to export (see below Chapter 6), the income to purchase grain must have been provided by labour migration. Rising levels of food consumption, as a result of seasonal and circular migration, may then explain the rapidly rising population of the mid nineteenth century, though by the later nineteenth century the rising rate of longer term migration may have had the effect of lowering the birth rate and reducing the rate of population growth. There certainly seems little evidence to suggest that population was pushed into migration from the 1840s by a rapid increase in the population.

NOTES

1. For the classic statement of this approach see W. A. Lewis, 'Economic Development with Unlimited Supplies of Labour', *Manchester School of Economic and Social Studies* 22,2,1954. Among the many writers to have been influenced by this approach, see G. Ranis and J. C. H. Fei, 'A Theory of Economic Development', *American Economic Review* 51,4,1961.

2. For a detailed exploration of the neo-Malthusian position and its critics in the context of early modern Europe see T. H. Ashton and C. H. E. Philpin eds., *The Brenner Debate* (Cambridge, 1985).

3. A. K. Sen, *Poverty and Famine. An Essay in Entitlement and Deprivation* (Oxford, 1981), puts the most powerful case against the role of demographic pressure in causing famine.

4. Pune Archive, Revenue Commissioner Central Division Records Miscellaneous Vol. 137; *Census of Bombay Presidency 1872 Part II* p. 1.

5. See D. Grigg, *Population Growth and Agrarian Change* (Cambridge, 1980) p. 238.

6. BRP 1835 Range 371 Vol. 44 no. 227 Petition dated 25. 9. 1834; in this petition from Khed taluka against the *khots*, they are accused of falsifying their house tax returns. Since they obviously supplied the information for house tax returns under the British, the same system was probably used under the *Peshwas*.

7. BRP 1843 Range 374 Vol. 120 no. 4796 dated 28. 2. 1843 enclosed with Ratnagiri Revenue Report for 1841/2. This gives statistics on the population of the whole collectorate and of each *taluka* from 1827/8 to 1841/2. The only details given are of males, females and children (no indication of how a child was defined). There is no information on how these statistics were collected, but they were probably connected with the house tax surveys made by the British in 1820 and 1830/3. (BRP 1834 Range 371 Vol. 27 no. 907 dated 26. 9. 1833 para. 8.). However, as the administration was not equipped to collect annual population data, it seems likely that these figures cannot be taken as an accurate record of annual population fluctuations, and approach accuracy most closely in the years of the house tax survey.

8. BRP 1821 Range 368 Vol. 8 p. 629, Revenue Report for 1818/19 and 1819/20 dated 18. 1. 1821. See also BRP 1820 Range 368 Vol. 2 pp. 4525-9, letter dated 29. 7. 1820 paras. 1-3, on the method of collecting the information. This census lists males and females over and under 12 of each caste, and also the number of houses of each caste. The problem with this census is that, at that time, Ratnagiri

Collectorate contained some *talukas* which were transferred to Thana (and later Kolaba) in 1830, which means that only an estimate can be made of the population of Ratnagiri proper.

9. *Dowell's Notes*. The survey was of 'old Ratnagiri *taluka*' - which was divided into Ratnagiri and Sangameshwar *talukas* in 1868. In this thesis, the *taluka* divisions as they existed after the reorganisation of 1868-79 are used.

10. *Dowell's Notes* p. 74. 'Indeed, the answers of the kuls in a village....are not much to be depended on when the Khota is by'.

11. MSA RD Vol. 225 of 1851 letter no. 143 dated 10. 4. 1851 from Capt. Wingate forwarding a paper of Lieut. Dowell p. 411.

12. Pune Archive, Revenue Commissioner Central Division Records Miscellaneous Files Vol. 137 of 1846.

13. BGP 1850 Range 350 Vol. 29 no. 4711 dated 28. 12. 1849.

14. Pune Archive, Revenue Commissioner Central Division Records Miscellaneous Files Vol. 245 of 1851 letter no. 696 dated 24. 5. 1851 para. 10.

15. BGP 1850 Range 350 Vol. 42 no. 7913 dated 11. 10. 1850.

16. Pune Archive, Revenue Commissioner Central Division Records Miscellaneous Files Vol. 245 of 1851 letter no. 696 dated 24. 5. 1851 para. 10.

17. Pune Archive, Revenue Commissioner Central Division Records Miscellaneous Files Vol. 245 p. 38.

18. MSA RD 1856 Vol. 20 'Filed Papers connected with the Administration of the Presidency 1855/6' Part 4 letter no. 614 dated 22. 7. 1856 p. 1285.

19. For a start, the whole Presidency was not in fact enumerated simultaneously, and moreover some sections of the census were not completed in some areas. For a criticism of the census see *Census of the Bombay Presidency 1872* Part II Appendix letter no. 4318 dated 25. 7. 1848 from Revenue Commissioner Southern Division.

20. For example, there seems to have been some confusion over the classification of the various fishermen castes.

21. Though it must be pointed out that many more recent censuses have not come to grips with these problems e.g. the 1953 Census of China - see Ping-ti Ho, *Studies on the Population of China 1368-1953* (Harvard, 1959).

22. P. B. Desai, *The Size and Sex Composition of the Population in India 1901-61* (Delhi, 1969), p. 5 Table 2 and pp. 228-9.

23. MSA RD 1855 Vol. 195/980 letter no. 34 dated 13. 4. 1855.
24. *Census of the Bombay Presidency 1872 Part II Appendix*, letter no.233 dated 18. 2. 1856.
25. For the methods used in the censuses after 1872, see *Census of India 1891 Vol. VII Part I* pp. 4-5 and 79.
26. *Census of India 1891 Vol. VII Part I* p. 5.
27. Those just away for the night were marked as present in their normal residence; those away for longer were marked as temporarily absent, and included in the return of the place where they were staying; those on coastal boats were enumerated in their home town, and in 1891 passes were given to travellers on trains to ensure correct enumeration.
28. *Census of India 1881 Bombay Presidency Vol. I* p. 6.
29. *Census of India 1891 Vol. VII Part I* p. 27.
30. *Census of India 1891 Vol. VII Part I* p. 143 criticises the 1891 census for not having clearly defined the difference between a caste and a sub-caste.
31. See F. Conlon, 'The Census of India as a source for the Historical Study of Religion and Caste', in M. G. Barrier ed., *The Census in British India in New Perspective* (Delhi, 1981), Ch. V p. 109 for this point, and in general on caste in the censuses.
32. *Gazetteer 1880* pp. 111 and following.
33. *Census of India 1931 Vol. VIII Part I* p. 81. See also T. Dyson, 'The Historical Demography of Berar' in ed. T. Dyson, *India's Historical Demography* (London, 1989) pp. 165-169 on the weaknesses of the data on age and the problems they present for modern demographers.
34. e.g. G. F. Hardy, *Memorandum on the Age Tables and Rates of Mortality of the Indian Census of 1901* (Calcutta, 1905).
35. This happened in the 1846 Census in the Northern Division, where returns were incomplete because people were afraid that the census was for a new poll tax: *Census of the Bombay Presidency 1872 Part II Appendix* p. 1, letter dated 14. 8. 1846 from the Revenue Commissioner M.D.
36. See for example A. Das Gupta, 'Study of the historical demography of India' in D. V. Glass and R. Revell eds., *Population and Social Change* (London, 1972).
37. See Lieut. Col. A. T. Etheridge, *Report on Past Famines in the Bombay Presidency* (Bombay, 1868) Appendix G, and Ratnagiri Collector's Report p. 118. See also BRP 1833 Range 371 Vol. 6 no. 388 dated 29. 11. 1832 para. 5.

38. See D. Grigg, *op.cit* (1980), pp. 57 and 61. Population growth rates of under 0.5% p.a. were typical of much of Western Europe in the late fifteenth to early sixteenth centuries and the mid seventeenth to mid eighteenth centuries, and would be considered relatively slow in the European context. Population growth rates of 0.5% to 0.9% p.a were common in Western Europe in the mid and late sixteenth centuries, and in England from 1750-1800, (see E. A. Wrigley and R. S. Schofield, *The Population History of England 1541-1871. A Reconstruction* (London, 1981) and would be considered moderately fast in the European context.

39. See D. Grigg, *op.cit* (1980) p. 238.

40. *Census of the Island of Bombay 1864* p. 98.

41. This rather clumsy device of using 'population of Ratnagiri + born in Ratnagiri living in Bombay' as the basis for calculations of migration rates and population growth rates, has been adopted because data on those born in Ratnagiri and living throughout the Presidency, which would be a more useful base, are not available for all censuses.

42. *Census of India 1881* Bombay Presidency Vol. I p. 12.

43. W. McNeill, *Plagues and Peoples* (Oxford, 1977).

44. As in some interpretations of England's population history from the fourteenth to the sixteenth centuries e.g. M. M. Postan, 'Medieval Agrarian Society in its Prime - England' in *Cambridge Economic History of Europe* (Cambridge, 1966).

45. Argued for Western India in the late nineteenth/early twentieth century by M. McAlpin, *Subject to Famine* (Princeton, 1983).

46. For the general significance of this interpretation, see the debate on the relative impact of medical innovations on the death rate in eighteenth and early nineteenth century England - T. McKeown, 'Fertility, Mortality, and Causes of Death', *Population Studies* 23,3,1978, and P. E. Razzell, 'An Interpretation of the Modern Rise of Population in Europe - a critique', *Population Studies* 28,1,1974.

47. As was apparently the case in eighteenth century Ireland with the introduction of the potato (J. Mokyr and C. 'O Gr'ada, 'New Developments in Irish Population History 1700-1800', *Economic History Review* 37,4,1984), though it is extremely difficult in such cases to determine which came first - the introduction of the new crop which made population growth possible, or the population growth which made the introduction of new crops necessary; see also, from the anti-Malthusian standpoint, E. Boserup, *Conditions of Agricultural Growth: the economics of agrarian change under population pressure* (London, 1965).

48. For the relationship between real wages and fertility in the English context, see E. A. Wrigley and R. S. Schofield, *op. cit.* (1981); for a critique of their analysis see J. A. Goldstone, 'The Demographic Revolution in England: a Re-examination', *Population Studies* 40,1,1986.

For a detailed discussion of the impact of industrialisation on the family, see D. Levine, 'Industrialization and the Proletarian Family', *Past and Present* 107, May, 1985 especially pp. 184-5 on the impact of rising labour demand on fertility.

49. For the impact of proto-industrialization on the family see, for example, H. Medick, 'The proto-industrial family economy: the structural function of household and family during the transition from peasant society to industrial capitalism', *Social History* 3, October, 1976.

In the Indian context, see M. Mamdani, *The myth of Population Control* (London, 1972) on the need for a large family to maximise income in the small peasant and landless labourer families.

50. For the effects of famine on the birth and death rates, see *Census of India 1881 Bombay Presidency Vol. I* p.34. See also C. A. Bentley, *Report of an investigation into the causes of Malaria in Bombay and the measures necessary for its control* (Bombay, 1911) p. 86 on the rise in deaths from malaria when food prices rise, and Appendix I p. 157 on the higher fatality from T.B. among the poor.

See also *Report on the Famine in the Bombay Presidency 1899-1902* (Bombay, 1903) Vol. I p. 93 on the higher mortality from various diseases during the famine.

51. For the impact of malaria on fertility see C. A. Bentley, *op.cit.* (Bombay, 1911) p. 48.

52. *Deaths in Bombay 1848-50* (Bombay, 1852) 1st Mortuary Report, 1848 pp. 1-7.

53. *Census of Bombay Presidency 1872* Part II Appendix on the Census of 1846 p. 2, and Pune Archive Revenue Commissioner Central Division Records, Miscellaneous Vol. 137 and 245, Census of 1846 and 1851.

54. e.g. *Census of India 1931* Vol. VIII Part I pp. 91-94 gives annual data. *Census of Bombay Presidency 1872* Vol. II General Report p. 48 just gives the average birth rate over the decade.

55. *Deaths in Bombay 1848-50* (Bombay 1852) 1st Mortuary Report, pp. 1-7 and *Census of Bombay Presidency 1872* Part II Appendix on the Census of 1846 p. 2.

56. *Census of India 1881* Bombay Presidency Vol. I p. 37.

57. On the under-registration of infant deaths, see *Deaths in Bombay 1848-52* (Bombay, 1852) Report for 1850, p. 111.

58. On the general method of estimating birth rates from the censuses, see P. M. Mari Bhat, 'Mortality and Fertility in India 1881-1961: a reassessment', in T. Dyson ed., *op.cit.* (1989).

59. *Gazetteer 1880* p. 295: deaths in Ratnagiri 1874-9, average yearly mortality 54% fevers, 4.9% cholera, 2.7% smallpox, 26% miscellaneous, 2% violence or accident.

60. BRP 1844 Range 374 Vol. 30 no. 1285 para. 13; and C. A. Bentley, *op. cit.* (1911) p. 88.
61. BRP 1850 Range 377 Vol. 11 no. 13336 dated 31. 3. 1849, Land Revenue Report for 1847/8 paras. 7-8.
62. Capt. J. Condon, *The Bombay Plague, being a history of the Progress of Plague in Bombay Presidency from Sept. 1896 to June 1899.* (Bombay, 1900) Introduction and Ch. I p. 6. Condon's estimate for Ratnagiri was 8,000 more deaths in the three plague years than in the three 'normal' years preceding it, but less than 800 of them were officially attributed to plague (pp. 307-311). This conflicts with the information from the Sanitary Commissioners Annual Reports, which shows that recorded plague deaths in Ratnagiri from 1897-9 were in excess of 1,000, but that the average death rate for the 3 years 1897-99 was the same (23.92) as that for the 3 years 1894-6 (*Annual Report of the Sanitary Commissioner for the Government of Bombay* for 1894, 1895, 1896, 1897, 1898 and 1899.) It is difficult to distinguish the effects on the death rate of the plague epidemic from the effects of the harvest failure of 1896/7.
63. In 1897 the epidemic appears to have been concentrated in the north of the district, and in 1898 round ports connected by steamer to Bombay, such as Jaigad and Ratnagiri town: Capt. J. Condon, *op.cit.* (1899) pp. 307-311 and *Annual Report of the Sanitary Commissioner for the Government of Bombay 1898* (Bombay, 1899) p. 63.
64. Calculated from *Annual Report of the Sanitary Commissioner for the Government of Bombay 1898* (Bombay, 1899) pp. 12 and 63, and *Annual Report of the Sanitary Commissioner for the Government of Bombay 1899* (Bombay, 1900) and annual reports 1904-1914.
65. K. C. Davies, *The Population of India and Pakistan* (Princeton, 1950) p. 51.
66. Interview with clinic doctor, Matru Mundir, Deorukh, Ratnagiri taluka, 1974.
67. K. C. Davies *op. cit.* (1950) p. 48. D. Arnold, 'Cholera Mortality in British India 1817-1947' in T. Dyson ed., *op.cit.* (1989).
68. *Gazetteer* (1880) p. 292.
69. *Selections M.S.* no. 7 (Bombay 1854) p. 35. In the 1840s-60s cholera also appears to have reached the Konkan from the Deccan via pilgrims from shrines such as Pandhapur: *Deaths in Bombay 1857-65* (Bombay, 1866), Mortuary Report for 1862/3 pp. x and xi.
70. Outbreaks in 1833 (BGP Index for 1833), 1839 (BRP 1839 Range 372 Vol. 52 no. 1025 accompanying no. 1024 dated 20. 9. 1838 para. 21); 1843 (BRP 1843 Range 374 Vol. 20 no. 4798 dated 28. 2. 1843 para. 10.); 1846/7 (BRP 1849 Range 376 Vol. 39 no. 5663 dated 13. 12. 1847 para. 86); 1849 (BRP 1849 Range 376 Vol. 54 no. 14350 dated 6. 11. 1849); 1850/1 (MSA RD 1852 Vol. 19/1207 letter no. 6

dated 2. 1. 1852); 1851/2 OMSA RD 1856 Vol 14/1435 letter no. 98 dated 16. 1. 1852 para. 65) 1855/6 OMSA RD 1860 Vol. 16 letter no. 1416 dated 31. 12. 1856 para. 3); 1837, 1866/7, 1869, 1871/2, 1873, 1877 and 1877/8 (*Gazetteer*(1880) pp. 62-4 and 292); *Annual Report of the Sanitary Commissioner for the Government of Bombay 1880* (Bombay, 1881) p. 28, indicates that there were serious outbreaks of cholera in Ratnagiri with over 500 deaths in 1871, 1875 and especially 1879 when there were 3,125 deaths. .

71. *Gazetteer* (1880) p. 295.

72. *Annual Report of the Sanitary Commissioner for the Government of Bombay* for 1889-1914.

73. See P. E. Razzell, 'The role of Smallpox Inoculation in the Growth of Population in Eighteenth Century Britain' D.Phil. (Oxford, 1968) and *Royal Commission on Vaccination. Report of the Dissident Commissioners* (London, 1901) pp. 11-12 and 23 for the history of inoculation in England and the debate on inoculation versus vaccination.

74. BGP 1851 Range 350 Vol. 60 no. 8118 dated 2.9.1851 para. 9.

75. BGP 1845 Range 349 Vol. 18 no. 3269 dated 1.6.1845.

76. See for example BGP 1851 Range 350 Vol. 60 no. 8118 dated 2.9.1851, from the Secretary to the Medical Board urging the government to ban inoculation and increase the number of vaccinators in order to make vaccination readily available.

77. *Report on Vaccination throughout Bombay Presidency and Sind 1854/5* (Bombay, 1856) p. 6 (hence *Vaccination Report 1854/5*).

78. BGP 1851 Range 350 Vol. 57 no. 6436 accompanying no. 6435 dated 17.6.1851. *Vaccination Report 1856/7* (Bombay, 1858) p. 3.

79. *Vaccination Report 1889/90* (Bombay, 1890) pp. 2 and 20.

80. BGP 1844 Range 349 Vol. 6 no. 3387 dated 30.5.1844, and BGP 1845 Range 349 Vol. 17 no. 2640 dated 6.5.1845.

81. For the epidemic of 1854/5 see *Vaccination Report 1854/5* (Bombay, 1856) p. 8; epidemic of 1858 see *Vaccination Report 1858/9* (Bombay, 1861) p. 6; outbreaks in 1873 and 1876/7 see *Annual Report of the Sanitary Commissioner for the Government of Bombay, 1880* (Bombay, 1881) p. 36 and for 1883 and 1884 outbreaks see *Annual Report of the Sanitary Commissioner for the Government of Bombay, 1883* (Bombay, 1884); epidemic of 1888/9 see *Vaccination Report 1889* (Bombay, 1890).

82. *Selections from the Records of Government of North West Provinces* 2nd series Vol. III (Allahabad, 1870) Art.-V-Report by R. M. Milne Esq. M. D. Official Superintendant of Vaccination, dated Benares, 1.4.1870 'Practice of Inoculation in the Benares Division' pp. 67-8, contrasts the almost universal inoculation in Bengal with the very limited

practice in Benares, and noted that it was also found in the Himalayas, Rajputana and parts of Western India. It is difficult to ascertain why inoculation should have been largely confined to these areas, though the combination of a large, well-educated Brahman population and extensive trading contacts with the Middle East and East Asia may explain its prevalence in Bengal and the Konkan.

83. BGP 1852 Range 351 Vol. 1 enclosed with no. 455 Bombay Medical Board Office dated 27.2.1852 letter no. 3568 dated 2.10.1851, shows that there was little or no inoculation in Ahmednagar, Sholapur, Dharwar and Poona (except the Ghat areas), little in Ahmedabad (letter no. 383 dated 19.8.1851) and none in Kaira (letter no. 965 dated 25.9.1851) or Surat (letter no. 465 dated 30.9.1851).

84. *Vaccination Report 1856/7* (Bombay, 1858) p.8; *Vaccination Report 1854/5* (Bombay, 1856) p. 23.

85. BGP 1852 Range 351 Vol. 1 no. 3568 dated 2.10.1852 para. 20.

86. *Vaccination Report 1856/7* (Bombay, 1858) p. 56.

87. BGP 1852 Range 351 Vol. 1 enclosed with no. 455 dated 27.2.1852 no. 3568 dated 2.10.1851 para. 15 Ratnagiri Collector's Report.

88. MSA RD 1855 Vol. 195/960 letter no. 34 of 1855 dated 13.4.1855.

89. e.g. *Vaccination Report 1856/7* (Bombay, 1858) p. 9, and BGP 1851 Range 350 Vol. 57 no. 1134 dated 17.6.1851.

90. Wingate's Diary Vol. 2 1849 pp. 82 and 74.

91. *Vaccination Report 1856/7* (Bombay, 1858) p. 9.

92. BGP 1837 Range 347 Vol. 60 no. 138 dated 2.5.1837 enclosing letter dated 3.5.1837 from Collector of Ratnagiri to Vaccinator, and letter no. 140 dated 28.6.1837. Also *Vaccination Report 1854/5* (Bombay, 1856) p. 8.

93. *Vaccination Report 1858 and 1859* (Bombay, 1861) p. 10. Inoculation was still apparently being practised in Thana north of Ratnagiri district in 1865 (*Vaccination Report 1865* (Bombay, 1866) p. viii).

94. See P. E. Razell *op. cit.* (1968) pp. 91-6 for a discussion of the relative merits of inoculation and vaccination. Though he suggests that Indian inoculation was 'attenuated', and therefore only lasted about three years, this is not so certain. The fact that the inoculation as practised in Benares caused approximately 2% fatalities according to Dr. Milne (*Selections from the Records of Government of North West Provinces* Vol. III (Allahabad, 1870) pp. 70-1) and that inoculation also produced a lot of pustules, suggests that the more powerful form of inoculation was used, which lasted longer: J. Z. Howell F.R.S., *An Account of the Manner of Inoculating for the Smallpox in the East Indies with some observations on the Practice and Mode of Treating the Disease in these Parts, Inscribed to the Learned The*

President and Members of the College of Physicians in London (London, 1767).

95. In Ratnagiri district in 1873/4 only 1,465 people were revaccinated as against 33,067 primary vaccinations, though by 1874/5 the need to increase revaccinations was finally being recognised: *Vaccination Report 1873/4* (Bombay, 1874) p. xxix, and *Vaccination Report 1874/5* (Bombay, 1875) p. 7.

96. P. E. Razzell *op. cit.* (1968) p. 271. Razzell calculated that 250 lives were saved per 1,000 born in a year by inoculation in eighteenth century Britain (p. 296). For a similar, more recent assessment of the impact of inoculation and vaccination on death rates in Europe see A. J. Mercer, 'Smallpox and Epidemiological-Demographic Change in Europe: The Role of Vaccination', *Population Studies* 39, 1985.

97. MSA RD 1855 Vol. 195/960 letter no. 34 of 1855 dated 13.4.1855. In Bombay city the census of 1872 shows that in the Chowpatti and Harbour districts (areas with a high proportion of immigrants from Ratnagiri), 20% of males had been vaccinated and 80% had had smallpox, only 20 individuals out of 22,860 having escaped smallpox without protection: *Census of the City of Bombay 1872* (Bombay, 1873) Tables pp. 58 and 168.

98. *Deaths in Bombay 1857-65* (Bombay, 1866) 10th Mortuary Report for 1857 pp. xvi and 3, 1858 Mortuary Report p. v, 1859 Mortuary Report p. vi, 1860 Mortuary Report p. v, 1861 Mortuary Report p. v, 1862 Mortuary Report p. xi, 1863 Mortuary Report p. vi, 1864 Mortuary Report p. vi, 1865 Mortuary Report p. iii. *Royal Commission on Vaccination* Report of the Dissentient Commissioners, (London, 1901) p. 18.

99. *Gazetteer* (1880) p. 295. *Annual Report of the Sanitary Commissioner for the Government of Bombay* for 1888-1914.

100. Unless one assumes that smallpox in India was less virulent than its European equivalent. The only data on case fatality which I have found (*Vaccination Report 1858/9* (Bombay, 1861) p. 7) gives a case fatality rate among unvaccinated children in one out-break in Ratnagiri district as 6% on average, which is very low. In Britain P. E. Razzell *op. cit.* (1968) p. 246, gives 9% (very low) to 36% as the case fatality among all ages, the average for eighteenth century Britain being 16%. However, there is no indication in any vaccination reports that smallpox in India was less virulent than elsewhere, so it seems unlikely.

101. For a modern example see P. R. Greenhough, *Prosperity and Misery in Modern Bengal: The Famine of 1943-4* (New York, 1982), where it is argued that the Bengal Famine was caused by the impact of war-time demand and British mismanagement. For examples of the impact of the developing trade and transport network on mortality crises in early modern England, see R. Schofield, 'The Impact of Scarcity and Plenty on Population Change in England, 1541-1871' in R. I. Rotberg and T. K. Rabb eds., *Hunger and History* (Cambridge, 1985).

102. A. K. Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford, 1981).
103. See M. B. McAlpin, *Subject to Famine* (Princeton, 1983) Appendix A pp. 220-221 for a comparison of Ratnagiri and Deccan rainfall.
104. In 1891, Gross Area Cropped per head of population in Ratnagiri district was 0.55 acres, almost the lowest in the Presidency: see Table 1.2.
105. Lieut. Col. Etheridge, *op.cit.* (Bombay, 1868) Appendix G.
106. BRP 1833 Range 371 Vol.6 no. 388 dated 29.11.1832 para. 5.
107. Lieut. Col. Etheridge, *op.cit.* (Bombay, 1868) p. 131.
108. *idem* p. 118.
109. *Census of India 1881*, Bombay Presidency Vol. I p. 12 and *Report on the Famine in the Bombay Presidency 1899-1902* (Bombay, 1903) Vol. I p. 93.
110. M. B. McAlpin, *op. cit.* (1983) p. 213 and *passim*.
111. Lieut. Col. Etheridge, *op.cit.* (1868) pp. 118-19.
112. *idem* pp. 120-121.
113. BRP 1839 Range 373 Vol. 2 no. 5555 dated 11.7.1839 para. 7-11. Etheridge, *op.cit.* (1868), did not consider this a particularly bad year.
114. *Gazetteer* (1880) pp. 262-4.
115. *Report on the Famine in the Bombay Presidency 1899-1902* (Bombay, 1903) Vol. 1 pp. 1-5.
116. There are references to grain imports and exports from as early as 1819 (BRP 1819 Range 367 Vol. 68 pp. 2,245-55, on the trade through Rajapur, Kharepattan and Malvan ports), but it is not clear how much of this was through trade only. A letter by the Southern Concan Collector Pelly in 1819 (BRP 1819 Range 367 Vol. 69 letter dated 9.9.1819 pp. 2,841-2 para. 4) points out that in view of a great demand for grain in the Deccan in that year, grain which was normally exported by sea was instead taken over the Ghats to the Deccan, and as a result sea customs had declined. This does suggest that Ratnagiri was itself exporting grain, rather than simply re-exporting imports from elsewhere.
117. There are references to grain imports to the district affecting prices there in the later 1820s and the 1830s, at times of poor harvests: BRP 1829 Range 370 Vol. 19 no. 191 Southern Concan Revenue Report for 1828/9 dated 17.8.1829 para. 16; BRP 1837 Range 372 Vol. 18 petition dated 24.4.1837; BRP 1840 Range 373 Vol. 17 no. 3199

Ratnagiri Land Revenue Report for 1838/9, letter dated 29.2.1840 para. 11.

118. *Gazetteer* (1880) pp. 262-4 (they had already been removed within the district in the 1820s).

119. BRP Range 374 Vol. 20 no. 4786 dated 28.2.1843 para. 13; BRP Range 376 Vol. 39 no. 5663 dated 13.12.1847, Ratnagiri Revenue Report for 1846/7 para. 4; BRP Range 377 Vol. 11 no. 13336 dated 31.3.1849 para. 5; BRP Range 377 Vol. 51 no. 18506 dated 26.2.1851 para. 20; and MSA RD Vol. 14 of 1856 no. 1435 Part I letter no. 98 of 1852 Ratnagiri Revenue Report for 1851/2 para. 21.

120. BRP Range 374 Vol. 20 no. 4804 enclosed with no. 4786 Ratnagiri Revenue Report for 1841/2 dated 28.2.1843 para. 12-14.

121. *Selections* MS no. 258 (Bombay, 1892) Appendix C and p. 7 para. 17. For other, less precise estimates of grain imports see *Selections* MS no. 574 (Bombay, 1920) p. 6 (640,285 Rs of grain imported by sea in 1894/5 and 804,884 Rs of husked rice, 335,029 Rs of unhusked rice, and 236,863 Rs of other grains imported in 1912/13, but no indication of how much re-exported).

122. Data are given in rupees - 65,528 Rs of unhusked rice, and 185,294 Rs of cleaned rice, which I have converted into sers at current prices. It is assumed, on the basis of an estimate provided by *Report on the Diet of Prisoners and of the Labouring Classes in the Bombay Presidency* (Bombay, 1865) that an adult male needs approximately 2 lbs of grain per day. V. C. Ranade, *Social and Economic Survey of a Konkan Village* (Bombay, 1927) pp. 85-6 makes a similar estimate: 5,412 lbs of grain per year (two thirds rice, one third *nagli*) for a family of one man, two women and two children). H. H. Mann's estimate (*Land and Labour in a Deccan Village* (Bombay, 1917) pp. 135 and 311) is much lower, equivalent to 1 lb per day per person.

123. *Selections* MS no. 627 (Bombay, 1929) p. 8.

124. M. B. McAlpin, *op.cit.* (1983) p. 155 Table 5.4. The percentage of the Deccan population fed by grain imports in the four 5 year periods from 1901-1920, varied from 20% (Poona and Satara 1901-5), to 6% (Khandesh and Nasik from 1906-1910). The assumption is made that food consumption was 1 lb of grain per head per day, which seems an underestimate by most calculations.

125. Data for 1846 show prices for rice in 1846 lower in Ratnagiri than in Poona, Ahmednagar and Sholapur, though higher than in Belgaum and Dharwar. (Pune Archive Revenue Commissioner Central Division Records Miscellaneous Vol. 147 of 1846 letter no. 1300 of 1846). Price rises over the century were relatively lower in Ratnagiri than in the Deccan: W. Hart, B. H. Ellis and J. H. Dunsterville, *Nemo by Commission appointed to collect information on the subject of prices affecting all classes of Government Servants* (1864/5).

126. M. B. McAlpin, *op.cit.* (1983) p. 147.

127. *Idem* pp. 55-6.

128. *Idem* Appendix B Table B-6 pp. 240-241. Calculated from this Table, the Standard Deviation in death rates in the Divisions of Bombay Presidency from 1891-1915 (excluding the quinquennium 1896-1900 because of the distorting effects of the plague epidemic) is 6.78 for the Gujarat, 6.44 for the Deccan, 12.44 for the Karnatak and 2.09 for the Konkan (Ratagiri, Thana and Kolaba). The coefficient of variation is 0.18 for the Gujarat, 0.18 for the Deccan, 0.34 for the Karnatak and 0.08 for the Konkan.

129. Data from the 1830s and 1840s on the amount of grain revenue payable in kind which the *khots* and *dharekaris* chose to commute for cash, gives some indication of the grain consumption needs of this group. For instance, in 1833, *khots* were eager to commute their grain payments at bazaar prices or above, because the harvest was poor and prices were high (Range 371 Vol 10 no. 1989 dated 13.3.1833). On the other hand, they were reluctant to commute when prices were low, unless they were offered rates well below the bazaar price (BRP Range 374 Vol. 9 no. 892 dated 26.1.1843 para. 2 and 3).

130. Unfortunately, the occupational data from the censuses is notoriously unreliable: see, for example, R. Newell, 'The Census as a Tool in the Study of Modern Urban Labour Forces in India: a case study from Tamilnadu' in W. G. Barrier ed., *The Census in British India in New Perspective* (Delhi, 1981). For Ratnagiri, the numbers of farm labourers recorded in the censuses of 1881-1911 varies very erratically for no apparent reason: 57,843 in 1881, 51,289 in 1891, 31,778 in 1901, 98,846 in 1911 and 38,244 (actual workers) in 1921 (53,487 including dependents). At its maximum in 1911, farm labourers represented only 8% of the population of the district, and the data for 1921 are most likely to be reliable, making the labouring population 3% of the total population of the district (4.6% if dependents are included).

Most British officials in 1887 still felt that day labourers and farm servants in Ratnagiri were being paid partly in cash and partly in kind: see Government of India Revenue and Agriculture Department: *Famine, Report on the Economic Condition of the Masses of the Bombay Presidency* (Calcutta, 1887) p. 93). By 1911, however, agricultural labourers were being paid mainly in cash (Bombay Presidency Miscellaneous Official Publications *Wage Census of Bombay Presidency including Sind* taken August 1911 (Bombay, 1919) p. 6 - in 92 villages in Ratnagiri district which were surveyed, only 26 villages had any labourers paid in grain. The situation was similar in 1924, where G. Findlay Shirras, *Report on an inquiry into Agricultural Wages in Bombay Presidency* (Bombay, 1924) distinguishes between farm servants, who were paid partly in cash and partly in kind, and casual labourers who were paid mainly in cash (p. 3).

131. *Selections* MS no. 574 (Bombay, 1920) p. 13 para. 52 and 53, and *Selections* MS no. 559 (Bombay, 1919) p. 11 para. 54. Both by the Assistant Settlement Officer, Medan.

132. M. B. McAlpin, *op.cit.* (1983) p. 55-56.

133. See J. Hajnal, 'European marriage patterns in perspective' in D. V. Glass and D. E. C. Eversley eds., *Population in History* (London, 1965) for a seminal article; and E. A. Wrigley and R. S. Schofield eds., *The Population History of England 1541-1871* (Cambridge, 1981) for the most thorough demonstration of the impact of age at marriage on birth rates in an historical context.

134. For a discussion of possible explanations for rising marital fertility in India between 1881 and 1961 see P. N. Mari Bhat, 'Mortality and Fertility in India, 1881-1961: a reassessment' in T. Dyson ed., *op.cit* (1989) p. 98.

135. A. Collier, 'The family cycle in India and US' *American Sociological Review* 28, 1963.

136. D. Mandelbaum, *Fertility in India* (California, 1974).

137. *Vaccination Report 1858/9* (Bombay, 1861) p. 7; *Vaccination Report 1856/7* (Bombay, 1858) p. 11.

138. There is some evidence to suggest that the poorest also married later: *Census of India 1931* Vol. VIII Part I Sub-Table VIII p. 32, of Hindu families investigated, only 6% of 'Advanced' and 'Intermediate' caste women remained unmarried at age 20-29, while 9.9% of 'Backward' caste women and 8.5% of 'Depressed' caste women remained unmarried at that age.

139. For a discussion of the effect of the age of husband and age difference between spouses on marital fertility, see J. Knodel, 'Natural fertility in pre-industrial Germany' *Population Studies* 32, 1978.

140. In regression equations of the birth rate on the price of rice for the previous year between 1872 and 1911, the coefficient of the lagged price variable is both negative and significant at 5%.

141. Absence of the husband for a period of years through circular migration might be expected to lower the fertility rate, but this might not be the case if regular visits home were made (see, for example, A. Chatelain, *Les Migrants Temporaires en France de 1800 a 1914* (Lille, Undated) p. 92 which suggests that this happened in the late eighteenth century Auvergne). For general discussion of the demographic issues, see C. Goldscheider, 'Migration and Rural Fertility in Less Developed Countries' in W. A. Schuyter and C. S. Stokes eds., *Rural Development and Human Fertility* (London, 1984). On the other hand, it could be argued that rising demand for labour might raise fertility: see, for example, E. Katz and O. Stark, 'On Fertility, Migration and Remittances in LDCs' *World Development* 14, 1, 1986.

CHAPTER 4

AGRARIAN STRUCTURE: LAND TENURE AND POVERTY

I Introduction

It has been argued in Chapter 3 that there does not appear to be a clear link between population pressure on land and emigration from Ratnagiri. The fluctuations in the rates of migration do not appear to coincide with the variations in the rates of population growth. Moreover, the rapid increase in population in Ratnagiri in the 1850s and 1860s appears to have occurred when the pattern of migration from the district had already become well established; it seems possible that rising incomes from migration may have actually helped to increase population growth rates in the mid nineteenth century and mitigate the impact of food crises in the late nineteenth century. Taking a broader perspective, high rates of outmigration are not obviously and directly linked with high population pressure on land either within India as a whole or in respect to Western India,¹ and within Ratnagiri itself the lowest rates of outmigration seem to have occurred from the southern *talukas* of the district, where population per acre was highest.

It could still be argued, of course, that population growth in eighteenth century Ratnagiri had been so high that the district was already at the demographic crisis point in the early nineteenth century. The evidence of the eighteenth century house tax records, however, suggests that this is unlikely to have been the case, and that famine cut back the population in the late eighteenth century, while population growth rates still remained very slow in the first two decades of the nineteenth century. Moreover, estimates of the cultivated acreage per head in one part of the district, Ratnagiri and Sangameshwar *talukas*, using data on population and area cultivated provided by Captain Dowell from his survey of 1827-30, suggests that

there was in fact still sufficient acreage cultivated per head to feed the population adequately in the late 1820s.²

However, some observers of Ratnagiri in the 1820s felt that it was not a prosperous district, and there are reports of extreme poverty in some sections of the population; *kumbi* cultivators, for example, were said to have been unable to afford adequate meals of grain for most of the year and to have had to live for part of the year on roots and berries.³ This is not, perhaps, a surprising finding. Attention has been focused by recent studies on the endemic poverty in rural Western Europe between the fourteenth to eighteenth centuries, even at times when the population was relatively low compared to the amount of land available.⁴ In Ratnagiri in the eighteenth century, the house tax records point to a small but persistent group of exceedingly poor households: slaves, debt-bonded farm servants and the totally destitute who paid no tax, and widows and the chronically sick who paid at a reduced rate. In Kalambaste, for example, a village in Sangameshwar *taluka*, the House Tax records for 1758 show that out of 51 households, 7 paid no tax because they were slaves or destitute, and 10 paid tax at half the normal rate because they were widowed or simply very poor. In Kuchambe, a village also in Sangameshwar *taluka*, out of 32 households in 1790, 8 paid no tax because they were slaves, debt-bonded labourers or destitute, and 2 paid half tax.⁵

In an agrarian society poverty is almost inevitable in households not headed by an able-bodied male; however, the fact that at least 5% of the population of Ratnagiri district in the late eighteenth and early nineteenth centuries were slaves or debt-bonded labourers, though not a large proportion in comparison with some areas of India at this time,⁶ points to a problem of poverty inherent in the system of land tenure which existed even before capitalism and imperial rule disrupted the land tenure systems, and before population growth put pressure on landed resources. It is argued in this chapter that the *khoti* system of land tenure, as it developed in Ratnagiri in the late eighteenth century, intensified the concentration of land control in the hands of one or two families in each village, which, combined with the operation of caste ideology, led to a high burden of tax and rent on the lower castes, and a subsequent process of impoverishment and

indebtedness of the poor and low caste cultivators. It is further argued that while this process began in the eighteenth century, it was substantially intensified by the introduction of British rule into the district, particularly the British legal system, and that the problems of poverty this created were exacerbated by the very high rates of taxation by the state in the late eighteenth century and for most of the nineteenth century.

II The Land tenure system in Ratnagiri at the beginning of British rule

1. The Dharekari Village. *Dharekari*, or peasant held, villages were concentrated mainly in Malvan taluka in the south of Ratnagiri district, and in the coastal areas, and by the early nineteenth century represented only some 20% of the villages in the district.⁷ It was generally believed that the *dharekari* tenure was the oldest tenure in the district, and that many *khoti* villages had originally been *dharekari*.⁸ The *dharekari* tenure had many similarities with *mirasi* tenure in the Deccan, and the *dharekaris*, like the *mirasdars*, were probably descendents of the original founders of their villages, and were regarded as *watandars*, with secure rights of inheritance of their holdings, and the right to mortgage and probably sell their *dharas* or holdings (though this rarely appears to have happened).⁹ The holdings themselves consisted in some cases of consolidated blocks of land, and in others of scattered fields, but they were all rice and garden or good hill land, which was cultivated in fields with fixed boundaries - the poorer hill land in the village was probably cultivated by all the *dharekaris* in agreed shares.¹⁰ Though most *dharekaris* cultivated some land themselves, by the late nineteenth century considerable variations had developed in the size of holdings, and the larger *dharekaris* let out land to the smaller *dharekaris*, or to *badhekaris* who had no land at all in the village; these tenants of the *dharekaris* paid a crop share rent to their *dharekari* landlord, and sometimes also had to do labour service for him.¹¹

Before the late eighteenth century, it seems that the revenue payment for *dharekari* villages was assessed by the government as a

lump sum for the village (the *tanka*, originally assessed in the seventeenth century) and the assessment was then divided among the *dharekaris* in customary shares. In the 1780s, however, the *mamlatdars* of the Konkan, in line with developments in the Deccan, instituted a new revenue survey, the *Kamal*, which measured and fixed the payment on each *dharekari* holding, though the payment to government was still usually made through one village representative, and it seems very possible that the new assessment was still divided up in traditional shares.¹² The village representative in *dharekari* villages was called the *gaonkar*, or often the *khot*, and played a role similar to the *patil* in the Deccan - collecting revenue and managing the cultivation of waste land and land abandoned by the *dharekaris*, for which he was paid a small remuneration, called *musahira*. Though in many cases the office does not appear to have been very profitable, it provided opportunities for exercising patronage and gaining control of land, which might in some circumstances enable the *khot* to take over the village on *khoti* tenure.¹³

11 The *Khoti* Village

The majority of villages in Ratnagiri district were held on *khoti* tenure by the early nineteenth century, a type of village *zamindari* tenure, which, though common in parts of North India, (most obviously Bengal), was not widespread in Western India. In Western India it was confined to the areas of Gujarat which never came under close *Maratha* control (the Rajput *talukdars* and the *Koli Mehvasis* in Ahmedabad, Broach and the Panch Mahals), where it was rather different in character and origin, being the product of the clan and tribal systems of these areas.¹⁴

The origins of the *khoti* tenure are obscure, though the first recorded instances of the tenure, in *khoti sanads* by the Adilshahi kings of Bijapur, are in the sixteenth century.¹⁵ Though there are a number of *khoti sanads* from the seventeenth and early eighteenth centuries, the majority appear to have dated from the mid eighteenth century, granted by the *Peshwas* or by the *Pant Pratinidhi* who had territory in the Konkan round his fort at Vishalgad.¹⁶ *Khots* with *sanads* of this type, from the higher authorities, were known as

watandar sanadi khots, and claimed that they could not be ousted from their *watans* by government, in contrast to *khots* with *sanads* from the district authorities, who were less secure.¹⁷

The *watandar khots* appear to have been established to assist in the military and political control of the district and to extend and open up cultivation in the forest and hill areas. In the seventeenth century, the Konkan was the scene of conflict between Muslim and *Maratha* powers, and the focus of some of Shivaji's earlier campaigns. Later, it was also one of the areas where the conflict between the Poona and Satara branches of the *Maratha* rajas was fought out, and became subjected to a number of different authorities- the *Peshwas*, the Satara rajas, the *Pant Pritinidhi*, and the Sidis of Jinjira, the Angrias of Kolaba, and the Sawants of Vari.¹⁸ Granting *khotiships* to local allies was a means of ensuring political support and rewarding services.¹⁹ Moreover, in the sixteenth and seventeenth centuries, much of the Konkan was covered in forest, and the grant of *khotiships* for new villages encouraged the opening up of cultivation, especially as these were often accompanied by *istawa* leases, which allowed a number of revenue free years, and then a slow increase of payments up to the full revenue payment, in order to encourage improvements.²⁰

Though many *khoti* *sanads* were probably granted for these purposes, a large number of *khots* probably acquired their villages in a less straightforward fashion by ousting or in other ways replacing the original *dharekaris*.²¹ The system was nonetheless useful to government in the eighteenth century, because the *khots*' main function was as a farmer of the revenue of their village - in the seventeenth and early eighteenth centuries, this was based roughly on the *tanka* assessment of the village, but after 1780, the payments were based on the new survey, the *kamal*, which measured all the land in the villages and fixed the payments on each. Villages were supposed to be resurveyed every seven years by the *mamlatdars*, but in fact this was never done, and 'cesses' were simply added to the revenue when the government required more money, a process which was accelerated by the practice of farming out whole districts in the last decades of *Maratha* rule.²² Farming of village revenues was a common practice under the *Peshwas*, in many parts of their empire, being a convenient way of collecting

revenue in areas where output fluctuates considerably from year to year and government would otherwise be impelled to conduct annual surveys of cultivation, and being also an easy way to extract revenue from remoter villages.²³

The actual role and activities of the *khot* within the village were nowhere clearly defined in the eighteenth century, and so much controversy surrounded the subject in the nineteenth century that it is difficult to determine exactly how they operated before British rule. Unlike *zamindars* in Bengal, the *khots* do not appear to have had any powers to dispense justice, nor did they keep large bodies of armed retainers, though some may have employed small groups of them;²⁴ they seem to have relied on the hereditary district officials and other higher authorities for support, rather than enforcing control directly. However, it is clear that the *khots* did control most of the land in their villages, and a significant proportion of the labour. The land most closely under the *khots'* control was the *khots'* personal holding,²⁵ which comprised much of the best land in the village, and was usually cultivated by the *khot* using a combination of forced labour, debt bonded labour and hired labourers, though it was sometimes let out to tenants at will (usually when the *khot* was an absentee). The *khot* also controlled the *gawik* land, unoccupied by permanent cultivators, and the *gayali* land, which was land abandoned permanently or temporarily by *watandar* or permanent cultivators.²⁶ In the early nineteenth century a clear distinction was kept between these two, as *watandars* had a right to return to abandoned holdings, but by the mid nineteenth century this distinction had disappeared, and with it presumably the rights of the *watandars*.²⁷ This land was not cultivated directly by the *khot*, but instead the *khot* organised its cultivation by sharecroppers known as *badhekaris*. *Badhekaris* were, technically speaking, newcomers to the village; some were indeed new settlers, but the term was also used to describe inhabitants of other villages who just cultivated a little land in the neighbouring village, and the term also often applied broadly to any family who had settled in the village after the *khot*. Much of the *badhekaris* land was hill land, and they had no permanent rights to the holding they cultivated.

The only land in the village which was not under the control of the *khot* (unless the village was 'mixed' or *kichedi* and had some *dharekari* holdings in it) was the *rakhmi* land of the *watandar kardes* or permanent cultivators, who held land with clearly fixed boundaries probably dating back to the founding of the village. By custom, they had certain 'rights' against the *khot*: they could not be ejected from their holdings if they made their customary cropshare payments, and they could mortgage their holdings. The *rakhmi* land was mainly rice and garden land, with some good hill land, and the proportion of village land which it occupied varied greatly from one *khoti* village to another.²⁹

Besides controlling the land, the *khots* exercised control over the cultivators themselves, particularly through the levy of labour service, which was imposed on the lower caste cultivators (such as *Kunbi*, *Mahar*, and *Gurav*). The rate of labour service was usually four days per house per month, for general farming work, and one day of ploughing, and in addition a variable number of days carrying the *khot* and his family in a litter on trips to other villages.³⁰ Labour was also required from low caste cultivators to carry the grain payment for the village to the government depot. When this ceased to be required because the *khots* began to pay the revenue in cash, a cash payment was taken from the cultivators instead.³⁰ Besides controlling the labour of the cultivators through forced labour, the *khot* could also requisition the free services of the village craftsmen to provide him with baskets, shoes etc.³¹ The *khots* also attempted, not very successfully, to restrict the movement of labour from the village.³²

III Rent, tax and peasant incomes in the early nineteenth century

Central to the operation of the *khoti* system was the means whereby the *khots* extracted produce from the peasantry, since this formed the basis of their own profits and their tax payments to government. It will be argued that under the *khoti* system a higher proportion of the peasants' output was extracted from them than under the *dharekari* system, and that most of the burden fell on the poorer, lower caste, cultivators. The basic method of extracting income from the peasants

was through the sharecropping system. The share of the crop to be paid by each cultivator to the *khot* was determined largely by customary criteria - cultivators of high caste paid lower rates than those of low caste; *Kunbi* cultivators and untouchable or low castes such as the *Mahar*, *Kumbhar* (potter), *Chambhar* (leather worker) or *Bhoi* (fisherman), paid half the crop usually, while *Narathas* and other middle ranking Hindus such as *Bhandari*, *Sonar*, and *Vani* castes, along with Muslim cultivators, paid mainly one third of the crop, and less often one half. *Brahmans*, on the other hand, never paid half the crop, paying usually one third, but often only one quarter of the crop.³³

However, these shares were only theoretical, and in practice the share of the crop paid by the cultivator appears to have differed considerably from this, and it was possible for the *khot* to raise and lower the actual payments, even though the customary rates apparently remained the same. For example, lower payments were made to *khots* in some cases in those villages where cultivators were in short supply³⁴ and *khots* sometimes penalised individual cultivators by raising their crop share payments if they were 'unco-operative'³⁵, though the customary rates remained the same.³⁶ This was made possible by the system of determining the crop share which was most commonly used in Ratnagiri. The crop was not divided on the threshing floor, as happened in some areas, but instead the shares were determined while the crop was still standing in the field. The *khot* made an estimate of the likely harvest by an inspection of the area of the growing crop, using 'customary' estimates of yield per *bigha*, and deductions were then made to allow for the actual quality of the crop in a given year, and sometimes also for the expenses of manure and seed. The 'half' and 'third' shares were then calculated on the remainder. For example, in Bondye village in *tarf Phungus*, *Sangameshwar taluka*, the *khot* put down 24 *maunds* as the crop for a *bigha*, deducted 4 *maunds* for 'excess', and 2 because the cultivators had to make payments to the *Mahar* and the *Gurav*, and for seed; he then took 9 *maunds* from 'half share' cultivators, and 6 from 'third share' cultivators.³⁷ This system obviously offered considerable scope for local variation, to suit the interests of the *khot*. The only *khoti* cultivators who were able to avoid the uncertainties of the crop share system were those who

cultivated on *makta* or 'fixed' agreements, paid in kind, usually for periods of three to five years, but very few cultivators had these types of agreements (only 23 villages out of 149 surveyed by Dowell in 1829/30).³⁸

Besides these crop share payments, there were other payments which many cultivators had to make to the *khot*. Some of these appear to have been devised by individual *khots*; one *khot* in Sangameshwar *taluka* raised a tax on the use of water in his village, another on *Kunbi* cultivators' weddings.³⁹ There were many taxes which were common throughout the district, however, such as *karsai*, *pursumpurde*, *patti badhe* and *map wartala*.⁴⁰ Village craftsmen and shopkeepers also had to make various payments to the *khots*,⁴¹ and as already explained, the lower caste cultivators were required to supply the *khot* with labour for which they received no payment, though a meal was usually provided.

It is extremely difficult to compare the rates of tax and rent paid by peasants in different districts in India, because of the enormous variations in revenue and rental systems between different localities within India. It is therefore not easy to assess whether peasants in Bengal, or even in Poona district of Bombay Presidency, paid more or less than peasants in Ratnagiri. However, it is possible to make some comparison between the rates of rent and tax raised from the peasantry in *dharekari* villages in Ratnagiri, both from the *dhara* holders and from their crop sharing tenants, with the situation of the crop share cultivators in *khoti* villages. This comparison can be made using data from Dowell's *Notes* on the *talukas* of Ratnagiri and Sangameshwar, which describe the situation in the 1820s, when the British were still operating the system which they had inherited from the *Peshwas*; this data can be supplemented by the village survey records (*pahani kharda*) of the *Peshwa's* survey of 1789, which were still in force in the mid nineteenth century, and show the acreage of each crop cultivated by each *dharekari*, and the payment in kind to be made on it in tax to the government.⁴² This gives no indication of the actual out-turn of the holdings, but in rice land - the only type of land where a serious estimate can be made - it was generally assumed in the early nineteenth century that the average out-turn of rice land

was 20-25 *maunds* per *bigha* (approx. 25-30 *maunds* per acre), though the best rice land was expected to produce considerably more than this.⁴³ On this basis, it appears that *dharekaris* were expected to pay about half the crop in rice land in tax to the government. In Piradavne village in Sangameshwar *taluka*, for example, payments on holdings of slightly above one *bigha* of rice, vary from 9½ *maunds* (on rice land of mixed quality) to 10 *maunds* (on second class rice), to 6 *maunds* (on fourth class rice);⁴⁴ half of this was commuted compulsorily at a rate said to have represented the market price in the late eighteenth century, but which by the 1830s was considerably higher than that as a result of a fall in grain prices in the 1820s and 30s.⁴⁵ *Dharekaris* also had to pay some cash taxes to government - house tax, and *karsai* and buffaloe tax.⁴⁶ Those *dharekaris* who did not cultivate their holdings themselves, let them out to crop share tenants; in Pirdavne the crop share tenants paid half the crop in rice land and hill land, except for the *Brahmans* who paid one third.⁴⁷ Though no details are given for Pirdavne, in some other *dharekari* villages, mainly in Ratnagiri *taluka*, *dharekaris*' half share tenants were estimated to pay 7-9 rupees in rent on every *khandi* of rice grown or approx. 9 *maunds* in kind.⁴⁸ On top of this, in Pirdavne, as it was in Sangameshwar *taluka*, tenants paid an extra 12% on their grain payments as *map wartala*, and had to perform some labour service for their *dharekari* landlord, including one day's ploughing, while those who were not also *dharekaris* might have to pay house tax.

It appears that there was not a great difference, in fact, between the payments of *dharekari* holders to government, and those of the *dharekaris*' tenants to their landlords, apart from the labour service required; *dharekaris* were likely to gain relative to tenants only if they were able to expand their holdings in the period between surveys, thus holding some land tax free until the next survey was made. However, in contrast, the crop share cultivators in *khoti* villages do appear to have paid significantly more of their crop in rent and tax than either the *dharekaris* or their tenants. If one assumes that annual crop assessments by the *khots* were accurate⁴⁹, then the payments of half share tenants in *khoti* villages varied in a small sample between 6 and 9 *maunds* a *khandi*.⁵⁰ Cultivators in *khoti*

villages also had to pay *map wartala* in many areas; villages in *tarf Sangameshwar* paid between 8% and 25% above their crop share payment, and in *Devrukh* and *Devle* up to 30%, while in areas near the coast payments were lower. In contrast, in *tarf Kuriat Nevre*, near *Ratnagiri* town, where most villages were *dharekari*, the tax was never levied.⁵¹ Lower caste cultivators in *khoti* villages in *tarf Devrukh* and *Devle* of *Sangameshwar taluka* also paid *patti badhen* of between 4 and 5 rupees a *khandi* on rice, (less on other grains), though in *khoti* villages in other areas these cultivators were required to carry the revenue grain to the nearest depot instead.⁵² Lower caste cultivators in most *khoti* villages also paid *karsai* or *pharmasa* to the *khot*, while it was much less common for tenants to pay it to their landlords in *dharekari* villages.⁵³ When other dues levied by *khots* in particular villages are included, as well as the cash taxes to government - house tax, government's *karsai* and buffaloe tax - this added up to a considerable increase over the crop share rent, and a higher payment than was apparently due from *dharekaris* and their tenants. In the *khoti* village of *Kirduve*, in *tarf Sangameshwar* of *Sangameshwar taluka* in 1835/6, one *ardheli* (half crop share) cultivator paid grain worth 9 rupees 3 annas on his holding (including *map wartala*), but as well as this, paid 2 rupees 11 annas in cash for house tax, payments on garden land, commutation for labour service (this was not common at this period), government's *karsai*, *khot's karsai* (this was usually paid in kind), and *gram kurch* (for village expenses). Another *tirdheli* or third share cultivator paid grain worth 1 rupee 5 annas on his land (including *map wartala*), but also paid 2 rupees 2 annas in cash for house tax, buffaloe tax, *mohotarfa* (on trade), *patti badhen* and *gram kurch*.⁵⁴

To sum up, though precise figures cannot be given, it does appear that cultivators in *khoti* villages paid a higher proportion of their produce in rent and tax than tenants in *dharekari* villages, and than *dharekaris* themselves in normal circumstances, and that the greatest burden fell on the lower castes, who had to pay higher rates of cropshare and more *corv'ee* labour. Since there is no evidence that the government exacted tax at a higher rate per acre on *khoti* than on

dharekari land, it must be assumed that this surplus was for the profit of the *khot*.

IV Land control and the State

If the *khots* made a greater profit out of the cultivators in their villages than the *dharekaris* did out of the tenants in theirs, it must be assumed that this in some way arises from the nature of the *khoti* system. It is suggested that the concentration of land control in the hands of the *khots* made possible the exercise of arbitrary power by the *khots* in their villages, in contrast to the *dharekari* villages where these tendencies were modified by the division of land control. It is also argued that the ideology of caste helped to encourage greater exploitation of the lower caste members of the village, which increased inequality and poverty within the rural community. Furthermore, it is argued that the concentration of land control in the hands of the *khots*, a process which accelerated greatly under the British, was a consequence of the needs of the Maratha and British states for patronage, political control and revenue extraction.

1 The *khots* and the state in the eighteenth century

From the seventeenth century, it appears that the *khots* controlled the land as a vital part of the military/political system of the *Marathas*, which could in some ways be described as a form of feudalism.⁵⁵ Ratnagiri was an area of great strategic importance to the *Marathas*, being easily defensible against the Mughal armies, and contained many of their most impregnable fortresses, strung along the Ghats - Pratapgad, Vishalgad, Rygad, Prachitgad, along with lesser forts such as Maimatgad - and also a very important series of forts along the coast - Vijaydurg, Ratnagiri, Suvernadurg, and Jaigad.⁵⁶ There is no doubt that there were some very close connections between the *khots* and the forts, in some cases going back to the seventeenth century. In Sangameshwar *taluka*, for instance, *khots* of four villages in the foothills of the Ghats were the serving officers at the fort of Vishalgad (Meghi, Kolwan, Tivre and Vighravli)⁵⁷ and in another village the *khots* were ex-officers from the Deccan.⁵⁸ But in a more

general sense, the *khots* were part of the system by which the district organised through the forts. Every fort in the Konkan was assigned the services of a group of surrounding villages. In Ratnagiri *taluka*, for example, villages were assigned to the forts at Ratnagiri, Jaigad or Purangad, and in Sangameshwar *taluka* to Prachitgad, Maimatgad or Vishalgad (though the latter's villages were not under the direct control of the *Peshwa* but belonged to the *Pant Pratinidhi*, who owed allegiance to the *Peshwa*). Villages appear to have 'belonged' to the fort; control of the fort brought control of the villages assigned to it, and villages could be fined for siding with a rival fort in a dispute.⁵⁹

The function of the villages was to supply the forts on a regular basis, which was clearly vital to their military effectiveness. Through the *karsai* tax, the villages supplied to the forts to which they were assigned materials for repairing the forts (rafters, ropes, thatch), and for provisioning the troops (vegetables, chickens, umbrellas, baskets.)⁶⁰ A section of the grain revenue of the villages was also payable directly to the forts, and only if the forts were already well supplied would the *khots* be allowed to sell the grain and pay this part of the revenue in cash instead, or pay the grain at the government depot.⁶¹ Villages around Jaigad fort, where grass needed for thatching and animal feed was in short supply, were required to set aside some grass land in every village to grow grass for the fort.⁶² Furthermore, village craftsmen could be required to work at the fort.⁶³ Closer links were also forged in some villages near the forts, by the practice of allowing soldiers at the fort to settle and cultivate land in the villages, and serve the fort on a rota basis.⁶⁴ This system of organising the supply of the forts was not, of course, unique to Ratnagiri, but was practised throughout the *Maratha* Empire.⁶⁵ In other areas it does not appear to be linked to a *zamindari* or *khoti* system. However, the location of the Konkan forts in the remote, rocky, jungle-covered regions of the Ghats, which had a low population in the eighteenth century, presented particular problems for the *Maratha* government over supplying the forts, which may have encouraged the development of a *khoti* system. It is significant that the only other areas where *khots* were found, apart

from Ratnagiri, was in similar country in Kolaba, and in the hill areas just above the Ghats in Kolhapur and Satara. *Khots* were particularly useful in these areas because of their control of village labour, which was needed to transport revenue grain which had to be carried to the forts on headloads through treacherous passes and ravines.⁶⁶ But, most importantly, they were useful to government because of their willingness to open up cultivation in their areas, bearing low returns in the early years in anticipation of higher gains later on. The *khots* themselves justified their position in their villages by pointing out their role in agricultural colonisation; and though they were often helped by tax concessions in the early years of cultivation, they must also have used their own capital in the process.⁶⁷ By introducing settled cultivation into the jungles of the Ghats the *khots* enabled the *Marathas* to keep substantial garrisons in the hill forts, which could be supplied with the produce of the surrounding *khoti* villages.

Though in the seventeenth and eighteenth centuries this close connection existed between the military authorities and the landholders in Ratnagiri, by the late eighteenth century the needs of the state had changed, and this required some adjustments in the nature of the *khoti* system. With the conquest of the Konkan by the *Marathas* in 1756, the military importance of the Ghat forts appears to have been somewhat reduced.⁶⁸ At the same time, from the last decade of the eighteenth century, the growing financial problems of the *Maratha* Empire led to the farming of district revenues on an extensive scale, including that of Ratnagiri. Under *Peshwa* Baji-Rao II, regular financial administration almost disappeared, and all district revenues were farmed to the highest bidder, while at the same time no controls were kept on the activities of the farmers by requiring accounts, and all complaints of local cultivators were ignored.⁶⁹ The revenue survey of 1788/9 in Ratnagiri was probably not properly implemented, and no regular revisions were undertaken; 'cesses' were simply added to the basic revenue when the government needed more money. The high rates of revenue extraction which this system produced must have placed great pressure on the villages of the district, bearing in mind that the revenue survey of 1788/9 itself appears to have imposed taxes on

landholders of approximately half the produce in rice land, even before extra cesses were added.

Of course, some villages were more vulnerable than others. Because the *Peshwas* were *Chitpavan Brahmins* from Ratnagiri district, many *Chitpavan* and other *Brahman* families in the *dharekari* villages on the coast had profited considerably from the connection; as a result, the flow of income from the court into these villages, much of which was invested in agriculture in the eighteenth century, along with their court connections, probably helped to protect these villages from the revenue farmers.⁷⁰ Similarly, those *khots* who had connections with the district or central administration appear also to have been less vulnerable.⁷¹ On the other hand, those who had no such protection found themselves subject to increasing revenue demands, at a time when cultivation was not greatly increasing and there were a number of famines. Some *dharekari* villages appear to have come under the control of the *khots* at this period in an attempt to protect themselves from the revenue farmers.⁷² On the other hand, a number of *khots* appear to have found themselves in difficulties, and turned to money-lenders to mortgage their holdings.⁷³ As a result, there is some evidence that a considerable number of *khotiships* changed hands at this period, mainly from Maratha to Brahman *khots*.⁷⁴ The *khots* who gained *khotiships* at this period were either money-lenders or district officers and their relatives, who, through wealth or political connections, were able to survive or resist the demands of the farmers.⁷⁵ At the same time their wealth and political connections also put them in a position to exercise greater power over the cultivators in their villages. These wealthy, powerful, *Brahman khots* usually owned a number of villages, and therefore were absentee in most of them, the villages being run by a manager.⁷⁶ The manager was unlikely to have been concerned about maintaining good relations with the inhabitants, as he held the post only for a short time. These *khots* were also less likely to have relatives or caste fellows in the village,⁷⁷ and complaints of oppression were much more likely to originate from such villages.⁷⁸

It appears that the desire of the *Maratha* rulers and their feudatories, for military and political reasons, to extend cultivation

in the Ghat foothills where poor soil, rock and jungle made cultivation difficult, led to the initial transfer of land control into the hands of the *khots*. However, the process of opening up cultivation does not in itself lead necessarily to landlord control. In European history it has often been associated with the growth of a free peasantry.⁷⁹ In Ratnagiri, it seems likely that the *khoti* system emerged from a combination of agricultural colonisation with a high revenue demand by the state. The very high rates of taxation by the state in India (traditionally 50% of the produce, as compared with approximately 13% in late seventeenth century France)⁸⁰ meant that governments could most readily extend cultivation by putting the land in the control of a wealthy individual who was prepared to share the costs of opening up cultivation with the government in return for future status and profit to be gained from the village. It is also clear that the higher the government revenue demand became, the more deeply entrenched became the *khoti* system, since in an area of fluctuating productivity, as in the hill lands of Ratnagiri, it was not possible to pay a high and regular revenue demand without some intermediary. The alternative was for the government itself to conduct annual crop assessments of villages and assess the share to be paid accordingly, a system known as *batai*, which was used in parts of Thana and at various times in the Deccan. However, this was clearly much more trouble than the *khoti* system since it required government to send its own officials, such as *mamlatdars*, into every village at least twice in a year.⁸¹

As the revenue demand increased in the late eighteenth and early nineteenth century, the *khots*' control over how the revenue demands were distributed through the village became increasingly important, and gave the *khots* an added power. This enabled the more powerful and well-connected to profit from the change-over to British rule, and to turn their *de facto* control over their villages into legal rights.

ii Landlord and State under the British 1818-1914

Until 1880, when the British introduced the Khoti Settlement Act, there were no major changes in the system of collecting revenue through the *khots* and *dharekaris*, and though the British government did abolish some of the Maratha taxes such as *karsai*, house tax and

buffaloe tax,⁹² the revenue assessment on villages and *dhara* holdings remained the same until the settlement operations between 1865 and 1890. At the same time, it is clear that the *khots* did not lose their power to control the extraction of produce from the villagers, even though they had lost the backing of the *Maratha* government. Crop-share payments continued to be high⁹³, and the *khots* continued to exact labour service, though as the century progressed this was more often commuted for cash than before.⁹⁴ They also continued to raise the many extra taxes which they had exacted in the eighteenth century.⁹⁵ This was possible because of the backing which the *khots* received from the British regime, particularly through the law courts, which significantly increased the powers of the *khots* over the cultivators in their villages.

From the outset there were a number of contradictions between the attitudes of different branches of the British colonial system towards the *khoti* tenure, though their fundamental purpose was the same. Like the *Marathas*, they wanted to put the land in the control of the class who would invest in it, in order to increase government revenue and provide political support; though, within the ideology of capitalism, they envisaged that this would be achieved by creating landed proprietors.⁹⁶ The problem in Ratnagiri, as in other areas of India, was to determine which of the groups with an interest in the land should be considered the 'proprietors', especially since tenurial relations were probably in a state of flux at the time when the British took over the district. Increasing numbers of villages in Ratnagiri were coming under the control of *khots* in the last decades of *Maratha* rule, and they had begun to exercise more arbitrary powers over the cultivators as previous mechanisms for protecting them broke down. In the first decade of British rule, clear differences emerged between the legal and administrative branches of the British government as to which group might properly be considered as 'proprietors' of the land in *khoti* villages in Ratnagiri, a difference which sprung mainly from their respective spheres of activity and the competing concepts with which they worked, but which was to have major policy implications during the nineteenth century.

It was in the law courts, introduced into the district in 1818/19, that the British were first faced with categorising the *khoti* tenure, and this had a very significant effect on developments later in the century. In court cases which were brought in the early 1820s, mainly concerning disputes over the ownership of khotiships, the courts quickly defined the *khots* as landlords, the 'absolute proprietors' of their villages.⁸⁷ There were several reasons behind this important decision. Firstly, most of the information made available to the British on *khoti* tenure when they first seized the district suggested that there were only two types of secure tenure, *dharekari* and *khoti*, and that all other cultivators were crop sharing tenants at will, ignoring the very substantial class of *watandar kardes* cultivators who had rights under the *khot* not dissimilar to those of the *dharekaris*. This information probably came from Indian officials in the district who themselves owned khotiships or were related to *khots*, and therefore presented a view of the tenure advantageous to themselves.⁸⁸ Secondly, records from the time of the *Peshwa's* government appeared to support their claims; in some, mainly late, *khoti sanads* and in mortgage bonds, the wording gave the *khot* the land, trees, water courses and tenants of the village, which suggested to British lawyers that they were the owners of all the land in their villages,⁸⁹ and in the land revenue records of the eighteenth century survey, land in *khoti* villages is all simply described as *khoti*.⁹⁰ In these circumstances, it is not surprising that the courts saw the *khots* as proprietors of their villages. The British law of property as it had evolved by the nineteenth century, was a clear-cut system designed to protect the rights of capitalists to complete control of their land and mineral assets, and conveyed complete control to the owner of the land. In Hindu law, in contrast, it is possible for several rights to exist in the same piece of land concurrently - the king's (as ultimate proprietor and receiver of land revenue), the revenue paying landholder's, the mortgagee's and the cultivator's.⁹¹ Once the *khots* had been identified as landed proprietors, however, they were then under British law entitled to behave as British landlords, to evict their tenants regardless of customary rights, to raise rents, and to dispose

raise rents, and to dispose of their assets as they chose. Though the *khots* had exercised an increasingly arbitrary control over their cultivators in the later eighteenth century, most of the evidence suggests that they were not in any sense the owners of the land of their villages, or the landlords of the *watandar* cultivators, and it seems probable that they were regarded by the *Maratha* authorities as holding their villages on service tenure.⁹² Such was the power, however, of the concept of property introduced by the British courts, that even when contradictory evidence came to light the *khots* continued to enjoy the status of landlord of their villages;⁹³ and even when the *khots'* proprietary rights cut across the rights of the British government, the courts were often forced by the logic of their own arguments to find in favour of the *khots*.⁹⁴

Though the law courts endorsed the *khots'* position, however, the district and Presidency administration operated from different perspectives. While the courts were concerned to introduce the ideological framework of British law which (as the Utilitarians held) would in itself be a prime mover in destroying 'feudalism' and opening India to capitalist development, the administrators, who saw the situation on the ground in the district, believed that the *khots* were a feudal class, and that progress would only occur if the land was in the control of the actual cultivator.⁹⁵ These views on *zamindari* landlords in general were common throughout the British administration by the 1820s, for the debate on the rival merits of *zamindari* and *ryotwari* tenure, which had raged since the late eighteenth century, had finally reached a consensus in support of some form of *ryotwari*, or at least a 'village' settlement.⁹⁶ In spite of this general hostility to the *khots*, however, the Presidency administration felt it necessary to endorse the *khots* in the mid 1820s, apparently because they felt that removing them would be too difficult as they had already been recognised by the courts, and also because they were a powerful and potentially disaffected group, many being ex-officers of the *Peshwa's* government and *Chitpavan Brahmans*. Furthermore, they were very useful for collecting revenue and keeping law and order, in the short term at least, until a full settlement could be introduced.⁹⁷

Unease developed, however, among Collectors and their staff in the late 1820s and 1830s, as increasing evidence came to light showing the existence of the *watandar* cultivators in *khoti* villages whose rights had been ignored by the courts.⁹⁸ As growing numbers of complaints reached the Collectors from the cultivators about the exactions of the *khots*, there was much indignation expressed over the *khoti* system. For example, the assistant collector in Thana, Davies, described the situation of the *khots'* tenants in Kolaba in 1836 as follows: (the *khot* takes from the tenants) *'the whole fruit of their industry, and in return, doles out to them corn and oil on the same principal that he would feed his own bullocks, to make them work'.⁹⁹*

The need to make some decision on the *khoti* tenure also became more urgent in the 1840s with the success of the revenue survey and settlement in the Deccan, as the administration began to contemplate the necessity of a similar settlement in the Konkan. Captain Wingate was dispatched, therefore, to make general proposals for a survey and settlement of Ratnagiri, and to introduce an experimental survey and settlement of a small group of villages in the district, which was carried out in 1852-5.¹⁰⁰ Wingate's settlement, in line with current opinion on the *khots*, effectively deprived the *khots* of most of the control of their villages, but ran into many practical difficulties and fierce opposition from the *khots*. As a result, the survey was suspended by the government in 1857, since it was becoming clear that it could not be introduced without legislation to remove the powers of the *khots*, which were now enshrined in legal precedent.¹⁰¹

In 1859, the *khoti* question was again raised, as the survey and settlement of the northern districts of the Konkan under the supervision of Colonel Francis had reached Sanksi taluka of Kolaba district, where there were a considerable number of *khoti* villages held on a similar tenure to those in Ratnagiri.¹⁰² In the wake of the Mutiny, the government's approach to the *khots* was more conciliatory.¹⁰³ The new proposals recognised the *khots'* right to hold their villages as the *superior holders* under the settlement, but still all 'feudal' levies were abolished. Furthermore, all the *khots'* tenants were given security of tenure with limited rights of sale and fixed rents based on the assessment with an element of *khoti* profit of up

to 50%.¹⁰⁴ This settlement, then, still deprived the *khots* of much of the control of and profit from their villages, and was accepted reluctantly by the *khots* in the northern *talukas* of Kolaba.¹⁰⁵ When the survey reached Mahad and Manganon *talukas* of Kolaba, in 1866, however, there was greater opposition, and when in 1867 the survey started in Ratnagiri district, in *taluka* Dapoli, (Peth Mandangad) *khots* from both areas combined in opposition and formed the Khoti Association, which planned to fight the survey through the courts, and levied a percentage of the revenue of members' villages to pay for the expenses.¹⁰⁶

The strength of the *khots* in Ratnagiri rested partly on the number of *sanadi khots* with a clearly documented claim to their villages (there were no *watandar sanadi khots* in Kolaba), and partly on the considerable numbers of influential *Brahmans*, particularly *Chitpavans*, holding *khotiships* in Ratnagiri district. Some of these *Brahman khoti* families had members who had obtained an English education and entered the professions - the most notable in this connection being V. N. Mandlik, a barrister in Bombay at the time (and later a member of the Bombay Legislative Council), who was also the *khot* of a village in Guhagur.¹⁰⁷ Mandlik took up the *khoti* cause and helped to organise a series of court cases in which the Khoti Association contested the legality of various aspects of the survey, focusing particularly on the way in which the survey impinged on the proprietary rights of *khots* as already established in the courts.¹⁰⁸ These cases finally forced the government to reconsider their position, and the debate on the nature of the *khoti* tenure, and the type of settlement which should be introduced, came to a head. An influential report by E. T. Candy in 1873 on the *khoti* tenure ¹⁰⁹, compiled from government records, concluded that the Survey Officers were wrong to give occupancy rights to the majority of cultivators in *khoti* villages, since only *watandar kardes*, who had been in the village as long as the *khots*, were entitled to such privileges.¹¹⁰ Candy saw the *khots* as similar to lords of the manor in medieval England,¹¹¹ and dismissed evidence from the eighteenth century that the government could remove *khots*, sell their *khotiships*, and interfere in relations between *khot* and cultivator, on the grounds that these cases only applied to non-

watandari khots.¹¹² A commission was then set up to enquire into the *khoti* tenure, under the Presidency of the Survey and Settlement Commissioner for the Northern Division, Colonel J. T. Francis. At the enquiry, the survey came under attack not only from the supporters of the *khots*, but from the Collector of Ratnagiri, J. Elphinstone, who believed that the settlement was unworkable because the rates had been set too high for the poorest cultivators, who were accustomed to the flexibility of crop sharing.¹¹³ In the final report in 1873, therefore, the Revenue Commissioner for the Southern Division recommended that the survey should be stopped.¹¹⁴

Before a new survey could begin, in order to avoid further conflict and court cases, a Khoti Settlement Act was drafted which became law in 1880. This Act in effect represented a retreat for the government. The Act retained for the *khots* nearly all their existing powers, since they were registered as the survey occupants of their villages, and allowed to retain the management of their villages in the customary way. Some cultivators did see an improvement in their status, however, in that tenants who had cultivated their holdings since 1845 were given secure, heritable tenure, and recorded in the survey records as subordinate holders, with the protection of a rent ceiling, and freedom from the obligation to perform labour service; all tenants, moreover, were freed from 'feudal' dues.¹¹⁵ The act did, in fact, extend security of tenure to a larger group than had enjoyed it in the early nineteenth century, in spite of the *khots*' objections.¹¹⁶ The data on the area held by *watandar kardes* in the early nineteenth century, and the proportion of occupancy tenants to tenants at will after the Survey Settlement, is very inadequate, and it is therefore difficult to be certain as to how the proportions changed over the century. However, data from *Dowell's Notes* and the settlement records suggests that, at least in Sangameshwar taluka, the proportion of *khoti* tenants with security of tenure increased over this period, in relation to *khoti* tenants at will. For five villages in Sangameshwar taluka, there are data from *Dowell's Notes* and also from the Settlement Records on the proportion of households in the village with security of tenure, and the proportion of village land they cultivated. Table 4.1.A shows

that the proportion of such households to total village households increased between 1827/30 and 1886/7.

Unfortunately, this sample is not a representative one, as the villages are mainly small hill villages which had an above average proportion of land farmed on a shifting cultivation system in the early nineteenth century. However, a detailed examination of household data for some larger and wealthier *khoti* villages shows that a number of families which had no security of tenure in the early nineteenth century had become occupancy tenants at the Settlement.¹¹⁷ Moreover, data on 45 villages in Sangameshwar *taluka*, (see Table 4.1.B), shows that 50% of households were *watandar* or landowners in 1830, and 79% by the time of the Survey Settlement. However, here again the areas where secure tenures had increased were mainly in *tarf* Devrukh and Devle, where there were more hill villages, while in *tarf* Sangameshwar and Kondivre the proportion of cultivators with secure tenure dropped significantly. Clearly, this fell far short of the original intention of the survey under Col. Francis, which would have given security to all *khoti* tenants; and it also seems probable that a significant minority of tenants who should in fact have been registered as occupancy tenants in the settlement were in fact deprived of that right by the machinations of the *khots*.¹¹⁸ Moreover, in succeeding decades, since tenants' status was permanently fixed and could only be improved by buying or inheriting a more secure tenancy (and sales of occupancy tenures were made illegal in 1912, Act VIII), there was no opportunity for the percentage of occupancy tenants to increase, while on the other hand, the *khot* was able to increase his personal holding when occupancy tenancies without heirs lapsed to him.¹¹⁹ As a result, a sample survey in Chiplun and Lanje *talukas* in the mid twentieth century still showed only 57% of the land cultivated by permanent tenants.¹²⁰

In other ways as well the Khoti Act of 1880 fell far short of the intentions of government, as a result of the *khots*' organised opposition. British officials wanted to introduce long term fixed rent agreements for *khoti* tenants, preferably in cash; however, Colonel Francis' attempt to do this in the survey settlement in the northern *talukas* of Ratnagiri foundered on the opposition of the *khots*, and the

apparent lack of enthusiasm from most tenants, who found it difficult to make a fixed cash payment at the rate required by the survey, while Francis was unwilling to reduce the revenue assessment.¹²¹ In the 1880 Khoti Settlement Act, therefore, fixed rents were entered in the Survey records only for those occupancy tenants who had customarily made a fixed payment to the *khot*, or who came to an agreement with the *khot* to pay in this way. Unlike previous fixed payment agreements these fixed rents could not be raised between surveys except in unusual circumstances, and so constituted approximately thirty year agreements.¹²² The survey records show a clear increase in the number of villages where some cultivators made fixed payments to the *khot* in the survey settlements of the 1880s, as compared with the situation in the 1820s; however, well under half the villages, at least in Ratnagiri and Sangameshwar talukas, had fixed rent agreements for any of their tenants by the 1880s.¹²³ It was not until 1904, when the Khoti Settlement Act was amended to give occupancy tenants the right to apply to government officers for a commutation of the crop share rent to a cash rent fixed until the next survey, without needing the consent of the *khot*, that fixed rent agreements became widespread.¹²⁴ Nonetheless, a survey in 1949 shows that nearly half the *khoti* tenants were still paying crop share rents.¹²⁵

To conclude, it is clear that during the first fifty years of British rule in Ratnagiri district the *khots* consolidated their control over land and significantly increased their power over the cultivators in their villages. Moreover, the control over all village land conferred by the law courts, and the failure of the courts to protect the customary rights of the *watandar* cultivators, changed the fundamental basis of agrarian relations within the *khoti* villages. While under the *Narathas* the *khots*' authority rested on a network of patronage which included many of the higher caste cultivators within the *khoti* villages, under British rule the *khots*' authority was divorced increasingly from rural society, and came to depend primarily on the British,¹²⁶ especially the British courts, access to which was gained largely through wealth. This regulation of agrarian relations through the expensive and alien medium of the law courts effectively deprived the majority of cultivators, both *watandar* and *dharekari*, of any

redress for their grievances, and put a powerful weapon in the hands of the *khoti* class; this was compounded by the changes in the law on the repayment of debts, which gave increased power to money lenders, who in Ratnagiri were mainly *khots*.

The immediate and dramatic impact of the introduction of British courts can be gauged by the protests which followed their introduction in 1819.¹²⁷ Though it is impossible to determine the precise results of their intervention in agrarian relations, particular instances show that the courts were used by the *khots* to intimidate tenants, and to gain control of land not previously theirs. For instance, it appears to have been not uncommon for *khots* and other landholders to file suits in the courts for the recovery of small amounts of rent from tenants, and then not bother to attend courts, so that the suits were struck off; some British officials believed that these *khots* were using the courts simply to harass their tenants.¹²⁸ Direct attempts were also made by the *khots* in the 1860s and 1870s to get full control of their land by using the courts to evict long standing tenants who might be entitled to security of tenure under the impending Settlement.¹²⁹ The easier access to the courts for the landowning classes as compared to the poorer cultivators made it possible for the *khots* to extract a high level of rent from the cultivators even in the face of alternative employment opportunities which became available in the later nineteenth century. From the 1870s, attempts by the British authorities to limit the powers of the *khots* led to restrictions on the power of the *khots* in the later nineteenth century, particularly after the introduction in 1904 of fixed cash rents determined by the survey officers, for occupancy tenants who requested them. However, the fact that 50% of tenants still paid a crop share rent to the *khot* in 1950, and that *khots* still controlled nearly 60% of the land, demonstrates that the *khots* were still able to exercise considerable power. Where the *khots* had complete control over their tenants in the nineteenth and twentieth centuries, there seems little doubt that the rate of rent was higher than that regarded by the government as the maximum fair rent: in the 1920s, for instance, tenants at will in Khed paid higher rents than occupancy tenants, even though they were likely to have been occupying inferior land,¹³⁰ and it therefore seems

suppose that the land control which the British handed to the *khots* in the course of the nineteenth century maintained, even if it did not increase, the high rates of surplus extraction which occurred at the end of *Naratha* rule.

iii Caste and tenurial relations

While the role of the state was of crucial importance in the development of the land tenure system in Ratnagiri in the eighteenth and nineteenth centuries, the operation of the caste system reinforced the trend towards the polarisation of society in Ratnagiri; it did this by strengthening the authority of the (mainly) high caste *khots*, and shifting the burden of high revenue demand increasingly onto the poorer and lowest caste. While the majority of cultivators were from the lower castes, most *khots* were *Brahman* or *Naratha*: out of 205 *khotiships* in Ratnagiri and Sangameshwar *talukas* for which details are available for 1830, 129 were held by *Brahmans*, 64 by *Narathas* and only 20 by other castes.¹³¹ Most of the plough cattle, essential for effective cultivation of rice land and the best hill land, were owned by the higher castes,¹³² who also cultivated larger holdings as *khoti* tenants, while in *dharekari* villages, high castes also had the largest *dharas*. Out of 12 villages in Ratnagiri and Sangameshwar *talukas* at the time of the British Survey Settlement (6 *khoti* and 6 *dharekari*) excluding the *khots'* holdings, 83 out of the 91 most valuable holdings (paying over 30 rupees in tax) were held by *Brahmans*.¹³³ The settlement records also show that the average holdings of high castes were larger than for lower castes, and high castes predominated in the larger holdings and lower castes in the smaller holdings (see Table 4.2).

The economic advantages enjoyed by the higher castes were reinforced by the system of tax and rent, which took more from the lower than from the upper castes. The *Brahmans* did not pay the *karsai* tax, either the government levy or the *khots'*,¹³⁴ nor did they and the *Narathas* perform labour service for the *khot*, nor carry their own grain to the depot (and they thus also escaped *patti badhen* where this was imposed as commutation).¹³⁵ Above all, they paid lower rents, as can be seen from Table 4.3. Lower rents for *Brahmans* were supposed

to be a concession to compensate for the fact that religious prohibitions prevented them putting their hand to the plough: but it is clear that rent discrimination on grounds of caste was more pervasive than this, and that the lower a caste, the higher the rates of rent they had to pay. This discrimination against the lower castes was reinforced by the leading role played by the *khot* in the religious affairs of the village. *Khots* appear to have often played an important part in village religious ceremonies. In Chiplun *Kasba* the *khot* was the first to worship at *Holi* and performed a number of other traditional ceremonies, including taking the village god round the boundary of the village once a year, as well as administering a village charitable fund based on the villagers' donations to the gods.¹³⁶ *Khots* also frequently contributed to the building or upkeep of temples, or to the cost of religious ceremonies.¹³⁷ In many villages the *khot* gave some revenue free land to the temple servant, the *Gurav*, for the upkeep of the *grandev*, and in some villages gave revenue free land to particular castes, especially the *Nahars*, for the upkeep of their temple, which was also considered important for the well-being of the village.¹³⁸ As such, they became the focus of authority in the village and could also count on the weight of high caste support behind them. There was, moreover, no alternative focus of power within the *khoti* village than the *khot*. *Ryotwari* villages in the Deccan had a *kulkarni* to act as a check on the *patil*, but there were no *kulkarnis* in *khoti* villages. In Ratnagiri, besides, there appears to have been very little sense of community. There was no *balutedar* system as in the Deccan to bind the community together; instead, various service castes had a *watan* giving them a right to operate in a particular area, often several villages together, and were paid not by the community as a whole, but by the job done.¹³⁹ The only true village servants in Ratnagiri were the *Nahar* and the *Gurav*, and these appear to have been paid often by revenue free land from the *khot*, rather than directly by the village community.¹⁴⁰ As a result, the importance of caste as an organising principle in rural society seems likely to have been enhanced; a situation reinforced by the physical lay-out of Konkani villages, which had no village walls,

and were divided into hamlets (*wadas*) all of one caste, often scattered over a wide area.¹⁴¹

One might expect that the impact of British law and the decline of patronage as a source of authority for the *khots* might have reduced the importance of caste in agrarian relations during the nineteenth century and to some extent this was the case. The position of the lower caste tenants improved after the Khoti Settlement Act, since the extra cesses imposed by the *khots*, which fell mainly on the lower castes, were abolished, as also was labour service for occupancy tenants. At first sight, it also appears from the settlement records that caste had ceased to be such an important factor in determining rent after 1880. In the settlement records, details are given of the crop share rents payable to the *khots*, and the rates of rent vary largely according to the quality of land rented.¹⁴² For example, in Karambele village in *tarf* Devle, Sangameshwar *taluka*, the occupancy tenants paid half the crop in rice land, one third of the crop in hill land, one third of crops of peppers and hemp, and a cash payment for each bearing jack-fruit tree. Less commonly, occupancy tenants paid according to their caste, as in Tike village in *tarf* Hatkhambe of Ratnagiri, where *Kunbi*, *Nahar* and *Shinde* paid half the crop in rice, hill and garden land, while *Teli*, *Sonar* and *Gurav* paid one third.¹⁴³ In the 80 villages in Ratnagiri and Sangameshwar *talukas* for which details on rent are available, caste is mentioned as a factor determining rent in only 25 villages in the settlement records, while in *Dowell's Notes* for the 1820s, caste was mentioned as determining rent in those some 80 villages in all cases, and land quality was mentioned as a factor in only 3. This may of course, be a misleading impression. As the Khoti Settlement Act of 1880 laid down a maximum rate of rent for crop share occupancy tenants of one half in rice land and one third in hill land, it is not surprising that all survey settlement entries mention quality of land as a factor determining rent. It is surprising that 55 of the 88 villages examined omit all mention of caste as a factor determining rates of rent for occupancy tenants, but even in the 1820s in many villages the great majority of tenants paid the same rates of crop share rent, with only a few families of higher or lower caste paying at a different rate. By the

1880s many high caste tenants had ceased to pay crop share rents and were paying fixed rents instead; while many of the lowest caste tenants could not have qualified as occupancy tenants at all. If all those who qualified as crop share occupancy tenants had customarily paid the same rates of rent, it is likely that their rents would be described only in terms of the land quality criteria demanded by the 1880 Act. At most there are 9 villages out of the 80 where caste distinctions in determining rent do appear to have been completely abandoned between 1830 and 1880.

If occupancy tenants still suffered disadvantageous rates of rent because of their caste, this was nonetheless much less apparent than before the 1880s, and after 1904, when occupancy tenants were allowed to pay cash rents determined as a multiple of the assessment and unrelated to traditional payments, this link between caste and rent was largely broken. However tenants at will, who did not have occupancy status, and those occupancy tenants whose holdings were too small and were forced to rent land from the *khot* as tenants at will, were not protected by the act, had no rent ceilings, and were still liable to perform labour service for the *khot*; it seems likely that these tenants, who were predominantly low caste, were still vulnerable.

During the nineteenth century, moreover, economic and social differentiation between castes was reinforced by the spread of education. Education had traditionally been the prerogative of the *Brahmans*, and in Ratnagiri in particular the *Chitpavan Brahman*s, the caste of the *Peshwas*, who were highly educated and supplied many of the administrators for the *Naratha* government. When English language schools were opened in Ratnagiri from 1845, *Brahman*s in particular took advantage of this opportunity to set their children on the path to a career connected with the colonial administration, such as local officials or court clerks. Other high castes also sent their children to these schools, and later to the institutions of higher education which opened in Bombay and Poona, and led to careers in the law and later the higher ranks of the colonial administration. In the English language Ratnagiri High School in 1880, of 166 boys, 138 were *Brahman*, mainly *Chitpavan*, 20 other Hindus, 7 Muslims and 1 Christian; and in 1879, 13 boys from this school, the largest English language school in

the district, passed the entrance examination for Bombay University.¹⁴⁴ Of course, most of the education in the district from the 1820s, in both government and private schools and in missionary schools, was in Marathi, but even in these schools the higher castes were likely to predominate. Though figures for education by caste in Ratnagiri district are not available, statistics on education by caste for the Presidency as a whole in 1891 show that, while 84% of male *Chitpavan Brahmans* and 74% of male *Devrukh Brahmans* (both concentrated heavily in Ratnagiri district) were literate, only 1.9% of *Konkani Kunbis* were literate.¹⁴⁵ Access to education, like access to the law courts, depended on wealth, not only the ability to pay for schooling, but the ability to forgo the economic contribution of children to the family; and so under the British, although schooling was theoretically open to all, and in the mission schools children of low caste were positively encouraged to attend, in practice the existing economic and social status of castes was actually reinforced by the new education, and the traditionally uneducated castes were denied the opportunity of challenging their situation through literacy. In the case of the *khots*, moreover, access to education had the particular practical value of enabling members of *khoti* families to obtain posts in the *taluka* and district administration, thus exercising a useful influence in the *khots'* favour.¹⁴⁶ For the *Brahmans* as a whole, the employment opportunities opened up by education gave them a chance to regain the financial rewards which they had lost when their connection with the *Peshwas* was severed in 1818.

It appears probable that during the eighteenth and nineteenth centuries the caste system reinforced the structure of class relations which was developing in Ratnagiri district. While the *khots*, and the bigger landlords in *dharekari* villages, were predominantly *Brahman*, and were able to use their caste status to increase their authority in the village, the *badhekari* tenants cultivating the hill land were predominantly low caste, and after the 1880 Act became in many cases tenants at will, cultivating with no security of tenure or protection from rising rents; even those who held occupancy tenures often had plots so small that they were forced to rent as tenants at will. Thus,

while in the eighteenth century the predominant influence of caste ideology on government and society enabled the higher castes to throw the greater burden of taxation onto the lower, by the end of the nineteenth century caste and class status had become closely entwined, so that the one reinforced the other.

V Conclusion

Although a degree of extreme poverty is endemic in most pre-capitalist rural societies, there is considerable evidence to suggest that the *khoti* system which emerged in Ratnagiri in the eighteenth century exacerbated the unequal distribution of wealth, by imposing particularly heavy burdens of tax and rent on the lower castes in the *khoti* villages. The *khots* were able to do this because of their control of most of the land in the villages, with the backing of the *Naratha* and the British states, who found them invaluable for facilitating the extraction of a high revenue from remote and underdeveloped areas, to supply first the forts under the *Narathas*, and then the colonial state under the British; and who also saw them as a convenient way of maintaining political and social control. The high revenue demanded in the later years of the *Naratha* state, and maintained by the British until the Survey Settlements (which were themselves less generous than those in the Deccan in the 1840s), only entrenched the *khots* in their position. The *khots* were also able to by-pass dissent within the village by generous treatment for the high caste cultivators, while putting the real burden of rent and tax onto the lowest castes. In spite of the optimism of the British that the *khots'* exactions could be checked by cultivators moving to other villages, there is little evidence to suggest that, though there was indeed much movement of population, cultivators greatly improved their conditions by doing so,¹⁴⁷ and other avenues of protest were increasingly closed to the low caste, poor and uneducated.¹⁴⁸ After 1880, the class division of the village had become complete, with the *khots* legally established in control of the land, and the larger occupancy tenants, who were mainly higher caste, secure in their holdings, and after 1904 free from the obligation to pay crop share

rents, while the lower caste and poorer cultivators became a landless or semi-landless class, with tiny or no occupancy holdings, condemned to continue to bear the brunt of the *khots*' exactions unchecked by any regulation of rent or tenancy.

It has sometimes been argued¹⁴⁹ that the maintenance of feudal relations in Indian agriculture in the nineteenth century, the result of an alliance between the landlords and the state, and of the state's high demand for revenue, made it possible to provide a cheap labour force for capitalist enterprise in India, and ultimately greater profit for metropolitan capitalism; peasants tied to the land by feudal obligations, could migrate only in a pattern of seasonal and circular migration to the cities; in consequence, capitalists were able to command their labour at low wages, since the costs of reproduction of labour were born by the rural areas. At first sight, Ratnagiri seems to be a clear example of this process. However, it is also clear from a detailed examination of developments in the district in the nineteenth century, that the *khoti* system had changed significantly over the century, from the eighteenth century system which could in some senses be defined as 'feudal', to a system which displayed some of the features of nineteenth century Western European land tenure. Furthermore, in the process, the position of the poorer and lower caste tenants in relation to the *khots* deteriorated significantly. It is a moot point, therefore, whether it was the maintenance of the pre-British system land tenure, or the changes to that system during early British rule, which precipitated migration. But in either case, it is clear that the poverty of many cultivators in Ratnagiri district in the first half of the nineteenth century can be related directly to the land tenure system.

NOTES

1. See Table 1.2; for an all-India perspective, see L. Chakravarty, 'Emergence of an Industrial Labour Force in a Dual Economy: British India 1880-1920', *Indian Economic and Social History Review* 15,3,1978.
2. It is a very difficult task, both in theory and in practice, to estimate the minimum acreage for subsistence. Data taken from Captain Dowell's survey of Ratnagiri and Sangameshwar talukas in 1828-30 (*Dowell's Notes*) shows that in 32 villages in the north of Ratnagiri taluka in 1830 there was 0.22 acres of rice land per head and 0.72 acres of hill land, while in the less densely populated inland taluka of Sangameshwar, in the 48 villages in the north of the taluka there was 0.25 acres of rice land per head, and 0.77 acres of hill land. If the 'standard yield' for the late nineteenth/early twentieth century is used -an admittedly discredited estimate, but the only alternative is the traditional estimate of yield used for revenue purposes, which is considerably higher (see Chapter 5 and Appendix III)- this would give a yield of 713 lbs of grain per person near the coast, and 779 lbs inland. H. H. Mann, (*Land and Labour in a Deccan Village* (Bombay, 1917) p. 135) suggests that 2,400lbs of grain were enough to feed a family of three adults and three children for a year, and on this basis, average holdings in Ratnagiri and Sangameshwar were large enough to provide subsistence and probably pay rent, though little else. Other estimates (see Chapter 3 note 122) suggest 2lbs of grain per day for adult males, which would also be provided by this size of holding.
3. BRP 1821 Range 368 Vol. 15 no. 5717 para. 18; BRP 1825 Range 360 Vol. 63 no. 44 dated 15. 8. 1824 para. 185; BRP 1829 Range 370 Vol. 22 no. 232 dated 1. 11. 1829 para. 38.
4. See C. Lis and H. Soly, *Poverty and Capitalism in pre-Industrial Europe* (London, 1979) e.g. p. 44: in rural Flanders in 1469, 25% of households had no landed property and an income too low to pay tax.
5. Pune Archive, Peshwa Daftar, Konkan Jamao, *Karsai* and *Nukta Bab* Accounts for Kalambaste and Kuchambe.
6. See D. Kumar, 'Caste and Landlessness in South India' *Comparative Studies in Society and History* 4,3, April 1962 - in Tinevelly in the 1820s, approx. 16% of the population were slaves or debt-bonded agricultural labourers, and approx. 13% in South Kanara.
7. Of 1,323 villages in Ratnagiri district in the 1820s, 266 were *dharekari*: BRP 1827 Range 369 Vol. 36 no. 75 dated 21.2.1827 and BRP 1824 Range 368 Vol. 63 no. 45 enclosed with no. 44 dated 15.8.1824, notes on the chart of the *haks* of zamindars.
8. BRP 1822 Range 368 Vol. 37 pp. 4302-5 dated 31.12.1822. But note the caveat expressed by B. Stein, on the dangers of taking at face value the common assumption of the British that there was an early, and more equitable, system of land tenure which had been destroyed by

the regimes from which the British seized power: B. Stein, 'Idiom and Ideology in Early Nineteenth Century South India' in P. Robb ed., *Rural India* (London and Dublin, 1983).

9. BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 23. See also IOL Elphinstone Papers Mss. Eur F88 Box 6F 47 'History of Talooka Ryeghur (drawn from the old natives of the district)' no date - probably c. 1820. see also Major T. B. Jervis, *Geographical and Statistical Memoir of the Konkun* (Calcutta, 1840) pp. 75-6.

10. BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 18 and 40 footnote. See also Pune Archive, Ratnagiri Survey. Rupal 14/4, Letter no. 2265 dated 25.11.1852 para. 4.

11. Pune Archive, Ratnagiri Survey, Rupal 14/4, Kemball to Wingate letter dated 27.8.1853 para. 16. See also *Dowell's notes* p. 282.

12. A. Wink, *Land and Sovereignty in India: agrarian society and politics under the eighteenth century Maratha Svarajya* (Cambridge, 1986) pp. 256-258. BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1920 para. 47: in *kulargi* (*dharekari*) villages after the last settlement, the share of each *ryot* was decided by the *watandars*.

13. MSA RD Vol. 71A of 1878 letter no. 701 dated 15.2.1878 Memo on the Settlement of Kolbandre, describes how a *dharekari* village became a *khoti* village in the late eighteenth and early nineteenth century.

14. A. Rogers, *The Land Revenue of Bombay* (Bombay, 1892) especially Vol. I.

15. T. B. Jervis, *op. cit.* (1840) p. 75.

16. In a collection of 71 *khoti sanads* obtained by the Revenue Commissioner in 1856, some pre-date the Peshwa's conquest of the Southern Konkan in 1756, and some are continuing grants made before that date, but the majority appear to have been granted after 1756: MSA RD 1857 Vol. 165 letter no. 543 dated 8.8.1856, appended to letter no. 2845 of 1856.

In *Dowell's Notes*, where mention is made of the origin of *khotiships*, some are from the sixteenth and seventeenth centuries, (Kadvai p. 211, Kirdhond p. 291, Ujgaon p. 136, and Kasar Kolwan p. 38), but most are under 100 years old (Mandlaj, Shirambawli, Wade Are, Murduv, Den, Parchuri, Gothane and Devrukh).

17. *Selections* NS no. 134 (Bombay, 1873) p. 3. The author, E.T. Candy, was a supporter of the *khots*, and probably overstated the case. All *watandars* could have their *watans* resumed by government in case of rebellion etc: A. Wink, *op. cit.* (1986) p. 362 note 120.

18. *Gazetteer of Bombay Presidency* Vol. I Part 2 History of the Konkan, Dakhan and S. Maratha Country (Bombay, 1896) pp. 65-85.

19. e.g. the khotiship of the village of Kond Ambedu in Sangameshwar taluka was granted in 1674 for good service to the Raja: *Dowell's Notes* p. 228.
20. MSA RD 1857 Vol. 165 letter no. 2845 of 1856 dated 13.9.1856 pp. 43-45.
21. Examples of this from *Dowell's Notes* are: Kasba Devrukh (pp. 81-2), Ujgaon (p. 137), and see also MSA RD Vol. 71A of 1878 letter no. 701 dated 14.2.1878 on Kolbandre.
22. BRP 1821 Range 368 Vol. 8 Report dated 18.1.1821 Jamabandi Report for years 1818/19 and 1819/20 p. 615 para. 17.
23. A. Wink, 'Maratha Revenue Farming' *Modern Asian Studies* 17,4,1983.
24. For example, BRP 1839 Range 373 Vol. 17 no. 3156 dated 3.2.1839, petition against the *khot* of a village in Malvan, who used his 'servants' to forcibly collect payments from the petitioner and prevent him using the village water course.
25. The *khot* held this land like a *dhara*. If the khotiship was mortgaged, for example, this *hasgi* land would still be cultivated by the *khot*, as tenant of the mortgagee; though if the khotiship was resumed by the government, apparently the *hasgi* land was resumed too. Pune Archive, Ratnagiri Survey, Rimal 14/4 enclosed with letter no. 357 of 1852, Translation of a mortgage bond relating to the claims of the *khots* in Ratnagiri district: see Appendix IV. See also *Selections* MS no. 446 (Bombay, 1907) p. 23 example of a khotiship and *khoti thikan* being attached.
26. BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829, Dowell's report on the Survey of Ratnagiri Taluka para. 24-6.
27. Pune Archive, Ratnagiri Survey, Rimal 14/4, no. 357 of 1852 dated 13.9.1852 para. 6. Also *Dowell's Notes* pp. 202 and 111.
28. *Selections* MS no. 134 (Bombay 1873) pp. 21-27. *Dowell's Notes* p. 260.
29. Pune Archive, Khoti Letters, Rimal 11/1 letter no. 90 of 1850 dated 17.6.1850 p. 681 Appendix A. See also Pune Archive, Khoti Letters, Rimal 11/1 letter no. 204 of 1851 dated 10.2.1851 p. 549; work involved not only farming, but also cleaning and repairing the *khot's* house, transporting goods etc.
30. *Ibid.* Also Pune Archive, Khoti Letters, Rimal 11/1, letter no. 87 dated 4.11.1857 p. 678; also *Dowell's Notes* p. 113.
31. *Dowell's Notes* *passim*, e.g. pp. 108 and 283.
32. BRP Range 370 Vol. 1 no. 10 dated 26.8.1828 paras. 66-68 and 92-94.

33. See below Section IV.iii for a fuller discussion of this point.

34. *Dowell's Notes* p. 148 on the low rents in Kolambe village, in *tarf* Sangameshwar, where the *khot*s were short of tenants, as compared to some wealthier nearby villages, and to the coastal areas. See also *Dowell's Notes* p. 25 on the general differences in rent between inland districts and the coast.

35. *Dowell's Notes* p. 36.

36. This system bears considerable similarity to that operating in post-traditional Java, as described by C. Geertz, *Agricultural Involution: The Process of Ecological Change in Indonesia* (Berkeley, 1970) p. 99; he sees it as an example of the effect of 'involution' on society, whereby an elaborate system developed within the framework of 'custom' to distribute diminishing resources among members of the village, as population and colonial exploitation increased during the nineteenth century. However, there seems no evidence to suggest that this was a recent development in Ratnagiri, or connected with problems of over-population.

37. *Dowell's Notes* p. 299, and for a similar account, p. 148. See also Pune Archive, Khoti Letters, Rumal 11/1, Extract 1 para. 12-13, letter from Capt. Adams to Capt Grant, dated 30.3.1820.

38. *Dowell's Notes*, *passim*. For particular examples of villages with *makta* agreements, see pp. 152 and 207.

39. *Dowell's Notes* pp. 30, 138 and 217

40. *Khot's karsai* was a levy of food and domestic items such as chickens, ropes, baskets etc. from the lower castes. *Pursumpurde* was a tax on gardens around cultivators' houses, untaxed by government. *Patti badhe* was a cash payment exacted from the lower castes as commutation for the obligation of cultivators to carry the revenue grain to the government depot, and *map wartala* was the use of bigger measures for accepting grain payments from the cultivators than was used for paying grain revenue to government, supposedly to cover the wastage in storage and transport. There was also in some *talukas* a levy for the expenses of village administration; Pune Archive, Khoti Letters, Rumal 11/1, letter no. 1362 dated 10.10.1848; letter no. 87 of 1850 p. 678; letter no. 90 of 1850 dated 17.6.1850; letter no. 204 dated 10.2.1851 pp. 582 and 552; *Dowell's Notes* pp. 158-9.

41. *Dowell's Notes* pp. 284. BRP 1843 Range 374 Vol. 10 no. 1083 dated 26.12.1842 - enclosure with, dated 10.7.1842: 'Report on petty taxes collected in four lapsed villages in Anjenwell' (later Guhagur *taluka*) - also includes some information on 36 villages in Ratnagiri *taluka* and 20 *dharekari* villages in Vijaydurg (later Rajapur and Deogad *talukas*). The *khot* got fish from the fishing boats, pots from the *Kumbhar* caste, the services of washermen and oilmen in exchange for food, and shoes from the shoemakers.

42. *Dowell's Notes*, *passim* and Pune Archive, Peshwa Daftar, Konkan Jamao. See Appendix III on sources of agricultural statistics.

43. T. B. Jervis *op. cit.* (1840) p. 97. See also BRP 1844 Range 374 Vol. 44 no. 7297 dated 15.2.1844 enclosure 7.

44. Pune Archive, Peshwa Daftar, Konkan Jamao, *Pahani Jirayet* for Pirdavne, *tarf* Sangameshwar, Sangameshwar *taluka*, 1789 Rumal 497. Further north, however, the rates appear to have been lower: see Pune Archive, Khoti Letters, Rumal 11/1, extract from para. 12-17, letter from Captain Adams to Captain Grant dated 30.3.1820 para. 15; in Raigad *taluka*, just north of Ratnagiri district, the *dhara* was 7 *maunds* a *bigha* for first class rice, 6 *maunds* for second, and 4 *maunds* for third class rice, but it was said that rates further south in the Konkan were higher.

45. Between one half and three quarters of the assessment, depending on the district, was compulsorily commuted to cash at fixed rates. For details, see BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829 Appendix B. With the fall in prices, these fixed rates became much higher than the bazaar prices: see BRP 1843 Range 374 Vol. 20 no. 4768 dated 28.2.1843 para. 21-3, which shows that landholders in the district paid approximately 29% above bazaar rates in fixed commutation rates.

46. Pune Archive, Peshwa Daftar, Konkan Jamao, Rumal 496 and 497, contains many examples of house, buffaloe, *karsai* and *pharmasa* tax records for villages in Ratnagiri and Sangameshwar *talukas*.

47. *Dowell's Notes* p. 282.

48. *Dowell's Notes* pp. 366, 373 and 382.

49. Which of course may well not have been the case. See V. M. Dandekar and G. J. Khundanpur, *The Working of the Bombay Tenancy Act 1948* (Pune, 1957) p. 157 on *khots'* crop share tenants:

'Presumably the appraisal of the crop by the *Khot* was the more important factor in determining the rent, so much so that in these cases the fixed shares were not found usually recorded.'

The *khots* would have been in a better position to manipulate the rents to suit themselves than the landlords in *dharekari* villages.

50. *Dowell's Notes* pp. 21 and 160 (6 *maunds*), pp. 147 and 54 (7 *mans*), pp. 42 and 269 (8 *maunds*), pp. 56 and 299 (9 *maunds*). An informant in Gothane (p. 25) told Dowell that in the Ghats payments were in fact lower than on the coast, because though the cultivators in Kuriat Nevre on the coast paid no *map wartala* and no *pattis*, they paid higher rates of crop share rent, but the examples given by Dowell from particular villages do not seem to bear this out.

51. *Dowell's Notes* p. 99. The rate of *wartala* in Maimatgad Ghera (the area round the fort of Maimatgad in Sangameshwar *taluka*), was 4 or 5 *pailis* on the *maund* (of 16 *pailis*). This was typical of villages in *tarf* Devrukh and Devle of Sangameshwar *taluka* (e.g. *Dowell's Notes*

pp. 19, 25 and 123). In *tarf* Sangmeshwar the rate tended to be lower (2 *pailis* per *maund*, for example, see *Dowell's Notes* pp. 230 and 236) but was sometimes as high as Devrukh (e.g. *Dowell's Notes* p. 260).

52. Pune Archive, Khoti Letters, Rumal 11/1, letter no. 204 of 1851 dated 10.2.1851 para. 21 p. 561.

53. Pune Archive, Khoti Letters, Rumal 11/1 no. 1362 of 1848 dated 22.4.1848. (Note that there was also *karsai* tax to government, usually paid in cash under the British (*Dowell's Notes* p. 320), but abolished in *dharekari* villages in 1823 and in *khoti* villages in 1840). Pune Archive, Khoti Letters, Rumal 11/1 letter no. 90 of 1850 dated 17.6.1850, and letter no. 204 of 1851 dated 10.2.1851. See also *Dowell's Notes*, *passim* (where it is referred to as 'pharmasa').

54. Pune Archive, Khoti Letters, Rumal 11/1, letter no. 204 of 1851 dated 10.2.1851 pp. 546-7.

55. For the debate on Indian feudalism see H. Mukhia, 'Was there Feudalism in Indian History', *Journal of Peasant Studies* 8,3,1981. For discussion of the nature of state systems in various regions of India, see B. Stein, *Peasant, State and Society in Medieval South India* (Delhi, 1980), and 'The Character of Old Regime Societies: State Formation and Economy Reconsidered' unpublished paper, Conference on the Cambridge Economic History of India, (Cambridge, 1984); see also A. Wink, *op. cit.* (1986).

56. S. Sen, *The Military System of the Marathas* (Calcutta, 1928) p. 106.

57. *Dowell's Notes* pp. 40, 106, and 114.

58. *Dowell's Notes* p. 238.

59. *Dowell's Notes* p. 164. Karbhatle village was fined by the *Killedar* of Prachitgad for siding with Ratnagiri fort.

60. A. R. Kulkarni, *Maharashtra in the Age of Shivaji* (Pune, 1969). Also *Dowell's Notes* p. 320 and Pune Archive, Peshwa Daftar, Konkan Jamao, *Akar Pharmasa* for villages in Ratnagiri, Rumals 496 and 497.

61. BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829 Appendix B.

62. *Dowell's Notes* p. 259.

63. *Dowell's Notes* pp. 49, 50 and 118. See also S. Sen, *op. cit.* (1928) p. 107.

64. S. Sen, *op. cit.* (1928) p. 108. *Dowell's Notes* pp. 25, 160, 200 and 202.

65. S. Sen, *op.cit.* (1928) p. 107.

66. *The Travels of the Abb'e Carr'e in the Indies and the Near East 1672-1674* (London, 1947) p. 192 describes grain being transported in headloads to Shivaji's forts in Anjanvel.

67. See V. N. Mandlik, 'A Brief History of the Watandar Khotes of the Ratnagiri district, with observations for a compromise of the disputes' (dated Feb. 1874) in ed. N. V. Mandlik, *Writings and Speeches of Vishvanath Narayan Mandlik* (Bombay, 1896). V. N. Mandlik was himself a *khot*. For a government view of *khots*' investment in the land see BRP 1821 Range 368 Vol. 8, letter dated 18.1.1821, p. 613 para. 14.

68. BJP 1824 Range 399 Vol. 34 no. 3303 enclosed with no. 3302 dated 1.1. 1824 para. 9: in 1808/9 the garrisons of forts in the Konkan were disbanded by the *Peshwa*, making it difficult for the *Namlatdar* to control crime.

69. A. Wink, *op. cit.* (1983) pp. 619-625. G. S. Sardesai, *op. cit.* (1968) Vol. II p. 447.

70. BRP 1823 Range 368 Vol. 37 p. 4338 Minute by Governor dated 26.3.1823. Also, T. B. Jervis, *op. cit.* (1840) p. 126.

71. BRP 1831 Range 370 Vol. 63 no. 2041 accompanying no. 2035 dated 3.9.1831 Part 3 shows how the *khoti* villages belonging to hereditary district officials, the *Desai* and *Deshpande*, were underassessed by the last Maratha survey in comparison with other *khoti* villages.

72. *Gazetteer* (1880) p. 209. A considerable number of *dharekaris* in villages in Dapoli and Khed under the *Peshwas* made agreements with their *khots* to pay above the normal revenue, in kind, if the *khot* undertook to pay the government assessment for them. This arrangement benefitted them at the time but brought them close to losing their *dharekari* status under the British. See also MSA RD 1878 Vol. 71A letter no. 701 of 1878 dated 15.2.1878, 'Memo on the Settlement of Kolbandre'; this was originally a *dharekari* village, became 'mixed' *khoti* and *dharekari* in an agreement of 1805, and finally the *khot* took over all the *dharekari* holdings c. 1820.

73. In *Dowell's Notes* details are given of the mortgages of 50 villages in Ratnagiri and Sangameshwar *talukas*. Of these, 7 dated back before 1790, 21 dated from 1790-1819, and 22 from 1820-30.

74. There are a number of examples of this, but no district statistics. In the early 1820s, a *Maratha khot* and a tenant complained that formerly there were *Maratha patils* in all villages, who were the *khots*, but as they became impoverished and resigned their *khotiships*, the *Brahmans* got in by mortgage or government appointment: IOL Elphinstone Papers MSS Eur. Box 15 (23) (K) 17 (G) Notes on the S. Concan 1823. In *Dowell's Notes* pp. 72 and 210, a case is described of Brahman *khots* trying to take over a village some 30 years previously, by claiming it had been abandoned by the *Maratha khots*, an attempt which was foiled by the *Marathas* who appealed successfully to the *Pant Pritinidhi*, who part owned the village. A case is also described of Muslim *khots* planning to murder a *Brahman* who had gained control of

their khotiship after a dispute: BJP 1820 Range 398 Vol. 75 no. 3593 dated 15.8.1820, and no. 4428 dated 18.10.1820.

75. *Dowell's Notes*, *passim* reveal that the Pandit family, a family of *Karhade Brahmans* with seven branches, most living in Sangameshwar taluka and Ratnagiri taluka held a considerable number of hereditary district offices by the 1820s. Between them, they were *Deshkulkarnis* of *tarf Devle*, and *Sirdeshkulkarnis* of 3% other *tarfs* in Ratnagiri. They were also *Deshpandes*, and held khotiships of all or part of 5 villages in Sangameshwar taluka and Ratanagiri taluka. Another powerful family were the Naik Desai family, also *Karhade Brahman*, who were *Desais* of *tarf Devrukh* and *tarf Sangameshwar*, *Sardesais* in Vishalgad and *tarf Devle*, and controlled khotiships of all or part of 24 villages in the area. The Khanwilkur family, *Sar-mokadums* of Vishalgad, had 8 villages in *inam* in Ratnagiri and were also *khots* of 5, and had at least one other on mortgage.

76. *Dowell's Notes* p. 143. Kashi Abaji Mule, *Khot* of Ozare-Khola, managed eight villages for the *Desai*.

77. In 204 villages in Sangameshwar and Ratnagiri taluka described in *Dowell's Notes*, *Brahman khots* came from the majority caste in the village in 21% of cases, came from a minority caste in the village in 52% of cases, and had no caste fellows in the village in 27% of cases. *Naratha khots* came from the majority caste in the village in 62% of cases, a minority caste in the village in 33% of cases, and had no caste fellows in the village in only 5% of cases.

78. e.g. 'Petition of Bhicknac Govindnac, Haviladar of 2nd Co. of Native Battalion, Dapoli, March 27th 1838 against various Brahmin khots in Taluka Dapoli': BRP 1838 Range 372 Vol. 32 no. 2685 dated 27.3.1838. IOL Elphinstone Papers Mss. Eur. F88 Box 15 (23) (K) 17 (G) Notes on S. Concan, Sheikh Muhomed Chogula's evidence. MSA RD 1878 Vol 71A letter no. 701 of 1878 dated 9.3.1878 Memo on the Settlement of Kolbandre; BRP 1845 Range 375 Vol. 8 no. 8040 dated 5.6.1845, extract from letter dated 23.10.1843 para. 14 and 15.

79. For example, the colonization of Siberia in the seventeenth century: J. Blum, *Lord and Peasant in Russia* (Princeton, 1971) pp. 163-44.

80. C. Lis and H. Soly *op. cit.* (1983) p. 100.

81. A. Wink, *op. cit.* (1986) p. 265. Pune Archive, Khoti Letters, Rumal 11/1, 'Particulars relating to the Revenue of the Rajpooree Taluka' 1820 p. 2 - under the *Peshwas* all hill cultivation was estimated from inspection of the crop, at between one sixth to one eighth of the crop.

82. BRP 1837 Range 372 Vol. 23 no. 6785 dated 26.10.1837 and BRP 1838 Range 372 Vol. 38 no. 5427 dated 13.9.1838 - suspension in 1837 and abolition in 1838 of house, plough and buffaloe taxes. *Karsai* was abolished in 1839: *Gazetteer (Bombay 1880)* p. 213.

83. Though there is no direct evidence as to whether crop share payments changed over the century, there was considerable conflict between *khots* and cultivators over crop share payments in the mid nineteenth century, with many cases brought to court, (BRP 1851 Range 377 Vol. 51 no. 18506 dated 26.2.1851 para. 54.) and many petitions from cultivators complaining of *khots* raising their payments in various ways: BRP 1832 Range 370 Vol. 67 no. 3500 dated 1.4.1832 and no. 3501, Collector's reply concerning a petition of peasants from Umare in Sangameshwar *taluka* against the *khot's* rates of crop share. *Khots* also tried to increase payments from crop share cultivators by refusing to receive them at the proper time, and then charging a high commutation rate on the grounds that they were overdue (MSA RD 1851 Vol. 25/2481 letter no. 301 enclosing letter no. 7 dated 25.1.1850 para. 22-240). This evidence suggest that payments were at least not being lowered.

84. Pune Archive, Khoti Letters, Rimal 11/1, letter no. 90 dated 17.6.1850 Appendix A p. 681. Surveys showed that in Vijaydurg (Deogad and Rajapur), rates of labour service had varied between 1834 and 1850, but most villages still paid it, and in some other *talukas*, especially in the north, a cash commutation was sometimes taken for labour service.

85. For example, the *khots* continued to levy their own *karsai* even though the *karsai* to the government was abolished: BRP 1840 Range 373 Vol. 9 no. 354, dated 10.1.1839; and MSA RD 1871 Vol. 61 letter no. 4063 dated 23.8.1871.

86. For the general debate see E. Stokes, *The English Utilitarians and India* (Oxford, 1959).

87. BJP 1820 Range 398 Vol. 75 dated 25.8.1820 p. 37,789 para. 4 and 5. The Civil Judge of the Konkan, Mr. Hale, describes the *khot* as the principal or sole landholder or proprietor of a village, and as such entitled to dismiss tenants at will, and fix rents on his land. The Governor complained in 1823 (BRP 1823 Range 368 Vol. 37 pp. 4,341-2, Minute dated 26.3.1823) that decisions in the courts had made the *khots* and others into hereditary proprietors. The Collector pointed out in 1828 (BRP 1828 Range 370 Vol. 1 no. 10 dated 26.8.1828 para. 75) that recognition by the courts of full proprietorship of the *khots* had helped to reduce the condition of the *watandar* cultivators close to that of tenants at will.

88. IOL Elphinstone Papers, Mss European F88 Box 6F 47 'History of the Talooka Ryeghur (drawn from the old natives of the district)', states that: 'with the exception of Dharaykur, and the grounds granted to other person all field belonging to the *khoti*'.

A history of Ryghur (Raigad) *taluka*, very probably the same one, was also given to Major Jervis, author of *Memoir of the Konkan*, by Mahommed Ibrahim Purkur, described as 'a respectable public servant', who had risen fast in British service from 1830 and acquired several *khotiships* on the way: see T. B. Jervis, *op. cit.* (1840) p. 89, and BRP 1833 Range 371 Vol. 9 no. 1875 dated 30.11.1833.

It is also notable that a list of 'natives' employed in the administration of civil justice in the Southern Concan in 1822 (BJP 1822 Range 399 Vol. 13 letter from Hale dated 25.4.1822) shows that the *Sadr Amin* at the *Sadr Adalut*, the *Munsif* in Malvan, and the Commissioners for Vijaydurg, Ratnagiri, Anjanvel, Suverndurg, Raigad, Auchitgad, Rewadunda, Sanksi and Underi were all *khots*.

89. *Selections* MS no. 446 (Bombay, 1907) p. 2.

90. Pune Archive, Peshwa Daftar, Konkan Jamao, Rumals 496 and 497.

91. J.M. Derrett, 'The Development of the Concept of Property in India' in *Zeitschrift für Vergleichende Rechtswissenschaft* (Stuttgart, 1962) pp. 15-130.

92. *Selections* MS no. 446 (Bombay, 1907) reviews the evidence of eighteenth century documents, and concludes that the *khots* did not have a proprietary right in the soil (thus contradicting E. T. Candy, *Selections* MS no. 134 (Bombay, 1873), which concluded that the *watandar khots*, with proper government *sanads*, did have proprietary rights). The arguments turn mainly on the extent to which *khoti sanads* giving land, water, trees etc. to the *khots* could be considered as giving a proprietary right in the soil in the sense of British law, and the extent to which the Peshwas treated *khots* as landowners as opposed to holders of service tenures.

93. Pune Archive, Khoti Letters, Rupal 11/1 letter no. 204 dated 10.2. 1851 p. 561; the assistant collector considered that a case in the *Sadr Adalut* showed that the law courts still supported the *khots'* proprietary rights. Also, MSA RD Vol. 50 of 1872 C. 269 p. 188, notice of appeal no. 128 of 1871 by long-standing *khots'* *ardheli* or 'half-share' cultivators who had been ejected by the *khot*; the sub-judge in Ratnagiri had found for the *khot* and the cultivators were appealing to the District Court.

94. The most significant example was the Kolbandre case, where the *khot*, in a test case, contested the government's right to interfere in relations with his cultivators. The *khot* in his original petition, (see MSA RD 1872 Vol. 50 C. 269) states:

'This village is my Watani village by inheritance and all the lands thereof belong to me'.

The court decided that government could introduce a survey in *khoti* villages, but could not interfere with relations between *khots* and tenants in a *watan sanadi khoti* village, so the *khot* had won a significant victory: see MSA RD 1876 Vol. 75 no. 1071 Report of Committee on Khoti tenure, Memo by A Crawford dated 28.12.1873

The courts also found for the *khots* in cases against the Conservator of Forests, where *khots* appealed against his decision that teak on *khoti* land belonged to the government e.g. *Bombay High Court Reports* Vol. 8, 1871 (Rajkot, 1901), Appeal no. 9 of 1870 p. 4.

95. BRP 1821 Range 368 Vol. 15 p. 5,716 letter dated 21.11.1821 para. 18, Deccan Commissioner to government: the *khoti* system keeps the *rayats* in a state of villainage, and the peasants in the Concan

are inferior to those of the Gujerat and Deccan as a result. BRP 1823 Range 368 Vol. 37, 26th March 1823 p. 4,337 Minute by Governor on Collector of Southern Concan's Report:

'The revenue is in the hands of hereditary farmers by whom the village establishments have been neglected, and the right of the Ryots destroyed, and the result is an oppressive taxation, a weak police and an impoverished, dispirited and degraded population.'

See also BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 19.

96. For general debate on revenue systems see *Selections of Papers from the records of East India House relating to Revenue, Police and Civil and Criminal Justice* (London, 1820), and C. P. Brown ed., *Three treatises on Mirasi Right* (Madras, 1852). For a modern over-view, see E. Stokes, *op. cit.* (1959). For the debate in Bombay Presidency, see discussions on the possibility of introducing 'village leases' to 'capitalists' in the Northern Konkan and Gujerat: IOL Board's Collections Bombay RD no. 8 Vol. 1,166 Register no. 30,520.

97. BRP 1825 Range 368 Vol. 63 no. 47, Government reply to Collector's Report of 15.8.1824 para 2: *'Whatever may have been the origin of their' (khots') 'title, they appear now to have acquired a right with which it would be neither just nor politic to interfere.'*

In BRP 1828 Range 370 Vol. 1 no. 10 dated 26.8.1828 para. 85, the Collector pointed out that the advantage of the *khoti* system to government was the ease and punctuality of raising the revenue. The value of the *khots* to the British in these early years can be highlighted by examining the problems encountered in the Northern Konkan, where the British abolished revenue farming and raised the revenue direct from the peasants: BRP 1831 Range 370 Vol. 44 no. 1308 dated 12.8.1830 para. 30.

98. *Selections* MS no. 134 (Bombay, 1873) pp. 1-32 .

99. BRP 1837 Range 372 Vol. 14 no. 3346 dated 30.9.1836 para. 14.

100. *Selections* no. 11 (Bombay, 1852).

101. *Selections* MS no. 134 (Bombay, 1873) pp. 51-6.

102. *Selections* MS no. 96 (Bombay, 1866) especially para. 16-19, pp. 229-30. *Selections* MS no. 134 (Bombay, 1873) pp. 69-79.

103. *Selections* MS no. 96 (Bombay, 1866) p. 241, Government Resolution on Col. Francis' proposals for *khoti* tenure in Sanksi taluka, dated 18.5.1860 para. 3, states that the government wishes to maintain existing rights as far as compatible with justice and sound revenue management, and: *'to adopt rather than overthrow institutions which, whatever their origins, have become so firmly rooted in these districts that their sudden eradication, supposing it to be possible, would amount to a social revolution'*.

For a discussion of the contradictory attitudes of the British administration see P. Robb, 'Land and Society: the British Transformation' in India' in P. Robb ed., *op.cit.* (1983).

104. *Selections* MS no. 96 (Bombay, 1866). *Selections* MS no. 134 (Bombay, 1873) pp. 69-79.

105. MSA RD 1861 Vol. 61/1078 letter no. 119 dated 20.3.1860, Colonel Francis' report on the introduction of the survey into Nagotna taluka. To secure their legal position when introducing changes in *khoti* tenure in the survey, the government added clauses to Bombay Act I of 1865, but they were very ambiguous, and not adequate to deal with the problems raised by the tenure.

106. MSA RD 1867 Vol. 19/290 letter no. 80 dated 23.1.1867. para. 5-11.

107. N. V. Mandlik ed., *op. cit.* (Bombay, 1896).

108. The most significant of these cases was probably the Kolbandre case: 'Wasudeo Damodhew Juwekar, Khot of Kolbundrey, taluka Soverndroog, v. the Collector of Ratnagiri and the Survey Commissioner, District Judge of Ratnagiri's Court, no. 19 of 1871': MSA RD Vol. 50/269 pp. 283-5. The *khot* contested the right of the survey officers to limit his demands on his tenants. The decision of Justice Birdwood went in favour of the plaintiff: see MSA RD 1876 Vol. 75/1071, 'Report of the Committee on khoti tenure', Memo by A. Crawford, dated 28.12.1873 p. 203, which points out that this prevented the government introducing any measures which interfered in relations between *khots* and the cultivators in their villages.

See also MSA RD 1875 Vol. 61 Report of the Khoti Commission, report of Mr. Haro Goley, *Vakil* at Dapoli, para. 6, which comments on a similar case. See further, MSA RD 1875 Vol. 61, letter no. A/421 dated 9.1.1873 para. 11; E. T. Candy notes that 66 suits about the survey settlement were filed by *khots* in 1869 against the Collector.

109. *Selections* MS no. 134 (Bombay, 1873).

110. MSA RD Vol. 61 of 1875. Report of the Commission appointed to inquire into the Khoti Tenure Question no. A/421 of 1873: Candy to Elphinstone 9.1.1873 forwarding his 'Notes' pp. 330-331 para. 3 and 4.

111. *Selections* MS no. 134 (Bombay, 1873) pp. 39-40.

112. *Selections* MS no. 134 (Bombay, 1873) pp. 2-4.

113. MSA RD Vol. 61 of 1875 no. 526, letter no. A/421 of 1873 from J. Elphinstone to Revenue Commissioner Southern Division, dated 10.3.1873, p. 310.

114. MSA RD Vol. 61 of 1875 no. 526, letter dated 24.3.1873.

115. See *Gazetteer* (1880) pp. 203-4 and A. G. Desai, *The Khoti Act of 1913* (Bombay, 1913). The government, though, left the *khots'* proprietary rights to their villages deliberately vague in the Act: MSA RD 1876 Vol. 75/1,071 Government Memo dated 18.12.1875 p. 343 Draft Resolution. As the government pointed out, though the *khot* as 'superior holder' might be considered as proprietor of his village under the draft Khoti Settlement Act, it was not a good idea to actually state

in the Act that the *khot* was a proprietor. As a result the controversy over the *khots'* proprietary rights continued in the courts and in government circles for many years: see *Selections MS* no. 446 (Bombay, 1907).

116. Naro Babji Goley, a member of the Khoti Commission and a spokesman for the *khots'* interest, made clear the objections of the *khots* to the registration of non-watandari tenants as occupancy tenants in the Commission report:

Kulas do not earn the title of Watandar by residing for any long time in the village, but are called 'badhekaris'.... it is the custom of the country and the understanding of the people that 'badhekaris'.....have no rights of any description over the land they cultivate.

MSA RD 1875 Vol. 61 Khoti Commission Report, Report of Mr. Naro Goley, *Vakil* at Dapoli, p. 14 para. 12.

117. For example, Muchari in Sangameshwar taluka, where in the 1820s all the Guravs, Gosavis, Sutars and Gavlis were *badhekaris*, and yet members of these castes all appear as occupancy tenants in the *botkut* of 1895: see *Dowell's Notes* p. 236, and *botkut* for Muchari village, Settlement Records, *Tahashil* Office, Deorukh.

118. Examples can be found in Ratnagiri Record Office, Special Papers, papers for Morde village in *tarf* Devle, Sangameshwar taluka, which contain the Survey Officer's notes on the status of the *khot's* tenants. In one example, Atma Krishna Ghutkar, who had gone to work in Bombay five years before, telling a relative to cultivate his field for him till he returned, found that the *khot* had seized it in his absence and claimed it as his own. In another case, the *khot* admitted that he had got the clerk making the survey to transfer some hill land from Laxman Babu Kotkur's name to his own, on the grounds that Kotkur had not cultivated the land for the last ten years. In this case the Survey Officers decided in favour of the tenants, but clearly in some cases the *khots* must have been successful, and some *khots* had in any case ousted tenants before the survey by the threat of legal action.

119. A. G. Desai, *op. cit.* (Bombay, 1913), sections 9, 10 and 11.

120. V. M. Dandekar and G. J. Khundanpur *op. cit.* (Pune, 1957) p. 155.

121. MSA RD 1875 Vol. 61 Report of the Khoti Commissioner letter no. 186 of 1875 dated 8.2.1875 by J. T. Francis and A. K. Wairne para. 13: tenants like the new system but complain strongly that the assessment is too heavy; similarly Memo by Narayan Ganesh, District Deputy Collector, on Dapoli taluka, pp. 7 and 9, thinks that the peasants' preference for the Survey Settlement is conditional on the survey assessment being reduced, otherwise they would prefer the old method.

122. A. G. Desai, *op. cit.* (Bombay, 1913) p. 227 'Proceedings in Council, Statement of Objects and Reasons, Bill no. IV of 1898, sec. 2; and 'Proceedings in Council, Statement of Objects and Reasons, Bill no. V

of 1898'. Even at a survey, fixed rents entered in the survey records could only be altered by a Survey Officer.

123. Of the 81 villages for which data is available on rents for 1830 and for the Survey Settlement, 14 had some tenants with fixed rent agreements in 1829 (4 of these of little significance), and 8 of these same villages had no fixed rent agreements recorded in the village survey settlement. In 1885, 32 villages out of the 81 had tenants with fixed rent agreements (including 5 with so few as to be insignificant) (Data from *Dowell's Notes* and the *therao* at the end of the *Botkut* in the Settlement Records of each village.

124. A. G. Desai, *op. cit.* (Bombay, 1913) pp. x and xi and pp. 12 and 227-48.

125. V. M. Dandekar and G. J. Kundanpur, *op. cit.* (Pune, 1957) Table 9.2 p. 157: from a sample of villages in Lanje and Chiplun talukas in 1948/9, in the area cultivated by permanent (occupancy) tenants, which constituted 94% of the area sampled, 42% paid crop share rents, and 63% paid a fixed rent in kind. In the *khot nisbat* land, 77% of the tenants at will paid a crop share rent, 21% a rent fixed in cash and 1% a rent fixed in kind.

126. See J. C. Scott, *The Moral Economy of the Peasant* (Yale, 1976), p. 66, for a similar process in Vietnam, where the divorce of landlord's authority from the process of patronage leads to a deterioration of relations between landlord and peasant.

127. BRP 1823 Range 368 Vol. 37 Minute by Governor, dated 26.3.1823 pp. 4,354-5, commenting on the many complaints from Ratnagiri about the introduction of the law courts:

'Perhaps the best part of the Adawlut system is the regularity with which it enforces the payment of debts,...Yet this is the part of the whole system which when suddenly introduced excites the greatest distrust. It is chiefly felt in the power which it gives to the Khots and other moneyed people over the Ryots whom they can by this means reduce at once to total ruin- and this extends to the Dharakurrees or Meerasdars who would otherwise be secure from their oppression'.

For some of the complaints heard by Elphinstone which gave rise to these comments, see Elphinstone Papers, IOL Mss Eur. F88 Box 15 (23) (K) 17, Notes on the S Concan including opinions of Hale, Dunlop and Lewis, 1823. Jan 21st, 'Information from 2 Muslim Deshmukhs of Goudwa and one Chitpavan khot of Khair'; and 'Information from Muslim Sirkomavisdar of Soverndroog and Patel of Tukooja'.

128. BRP 1828 Range 369 Vol. 61 no. 42, dated Feb 1828, for examples of suits stuck off by non-attendance of the plaintiff; see *idem* no. 45 for the comment that these small suits were used to harrass the poorer cultivators. For a similar opinion, see BRP 1824 Range 368 Vol. 54 no. 3714 dated 1.5.1824 para. 32, where the Collector, Dunlop, remarks: *'I am not prepared with proof, but have strong reason to suspect, that prosecutions have been used as a means of annoying Ryots who had made themselves obnoxious to their khotes..'*

129. For attempts of *khots* to gain greater control of the cultivators' land by evicting cultivators of long standing in the village, (mainly on hill land) through the courts, and declaring their land to be *khot khasgi*, or 'personal holding of the khot', see MSA RD 1874 Vol. 102 C. 1856, letter from A. K. Mairne to E. T. Candy dated 6.6.1874 pp. 530-531. Mairne comments that there were many of these *chalu wahiwat* cases, and in the 1860s it was notorious that the *khots* were doing all they could to get the hill land entered in their name in anticipation of the survey; one *khot* in Chiplun was sentenced to three years in prison for falsifying evidence in order to get all the hill land in his village declared *khot khasgi*.

For a specific example of the *khots*' use of the law courts, see BRP 1827 Range 369 Vol. 35 no. 23 dated 7.2.1827, petition from Abdul Rozad Putkur, who had a dispute with the *khot* over the ownership of some rice land. The *khot* seized part of the rice land by force from Putkur, who complained to the Collector. In revenge, the *khot*'s nephew brought an action in court against Putkur and his brother, and his brother was put in jail in Ratnagiri.

130. *Selections* NS no. 627 (Bombay, 1929) p. 59 - rents were much higher on *khot khasgi* land, where all the tenants were tenants at will, than for occupancy tenants paying fixed rents as multiples of the assessment. Tenants at will, in the Settlement Officer's opinion, were poorly clothed and nourished and paid oppressive rents - 10 maunds of grain on land yielding 17, for example.

131. *Dowell's Notes*, *passim*.

132. Pune Archive, Peshwa Daftar, Konkan Jamao, Rumal 496 and 497, *Nakt Bab* and *Van Nhaisi* for villages in Ratnagiri and Sangameshwar talukas; for example, in the records of bullock tax for Sonavde in Sangameshwar taluka for 1790, of the 31 bullocks recorded, 16 were owned by *Brahmans*, 3 by *Marathas*, 3 by *Sonars*, 3 by *Telis*, 2 by *Guravs* and in 4 cases the caste of the owner was not clear.

133. A dividing line of 30 Rupees p.a. tax on a holding seems, from my observation of the Settlement records, to represent a holding more than sufficient to support even a good sized extended family. Such holdings usually contain between two and six acres of rice land and a quantity of hill land which varies greatly depending on the quality of the land. The land tax on a holding is a more reliable indicator of the value of a holding than its acreage, since in Ratnagiri district the quality and productivity of the soil and the types of cultivation varied so enormously.

134. Pune Archive, Peshwa Daftar, Konkan Jamao, Rumals 496 and 497 *Akar Pharmasa* - records of the tax - in Ratnagiri and Sangameshwar talukas: *Brahmans* did not pay.

135. *Dowell's Notes*, *passim*. Only *kumbis* and lower castes ever performed labour services, e.g. p. 42 Harpude in Sangameshwar taluka, where there was also an instance of *Brahmans* not paying *badhe*. See also Pune Archive, Ratnagiri Survey, Rumal 14/4, letter no. 357 of 1852 para. 6.

136. BRP 1834 Range 372 Vol. 1 no. 6598 'Petition of Byrsett bin Govindsett Dackwra, Patel Muccadam Cusba Chiplun' - concerning the khotiship of *Kasba Chiplun*, dated 16.1.1834.

137. There are many examples in *Dowell's Notes* of temples built by *khots*; for example p. 137 in Ujgaon in Sangameshwar *taluka*, and p. 361 in Vaidya Lawgan in Ratnagiri *taluka*, where the *khots* spent 1,000 Rs. building a temple in the village in c. 1770.

138. There are many examples in *Dowell's Notes*, e.g. p. 43, where the *khot* gives an *inam* for the upkeep of the *Nahars'* shrine in Harpude in Sangameshwar *taluka*, and the *Gurav* (temple servant), also gets land in return for tending and worshipping at the village shrine (the *gramdev*).

139. e.g. *Dowell's Notes* p. 17, in Peth Ibrahampur, in Sangameshwar *taluka*, the barber, shoemaker and washerman had a *watan* for seven villages around; in *Kasba Devle* in *tarf* Sangameshwar (p.49), the shoemaker, the carpenter and barber had a *watan* for six villages around; the potters of Makhajan and Phansavne had the *watan* for most of the *mahal*. The *watan* gave the holders the right to sell their goods and services in a particular area, and also some other privileges: for example potters would have the right to perform the ceremony when a man died. In Ragaon, in Sangameshwar *taluka*, the potters had no *watan*, because the potters of Makhjan and Phansavna held the *watan* for the area; the potters of Ragaon therefore simply sold pots locally to make a living. Both *watandars* and other craftsmen and service castes were usually paid for the job done; the carpenter in Devle was paid per plough for repairs. In Kolambe, in Sangameshwar *taluka* (p. 49), the carpenter was paid in kind per plough (less from *Brahmans* than lower castes), and the shoemaker was paid for the shoes he provided (eight annas to last a year, four annas to last six months).

140. Though the serving members of the *Nahar* and *Gurav* castes were usually entitled to regular payments in kind from the cultivators, they did not always receive it, in some cases because the peasants could not afford to pay. They were sometimes therefore given revenue free land by the *khot* instead, or as an addition to their income from the peasants, and occasionally the *Gurav* was allowed labour service from the *Kunbis* to cultivate it. *Dowell's Notes* p. 42 notes how in Hativ, in Sangameshwar *taluka*, the *Nahar* and *Gacnkar* got *punj* from the ryots, but many were too poor to pay, so they only received half their due. In Harpude, also in Sangameshwar *taluka* (p. 43), the *Nahar* and the *Gurav* had an *inam* (revenue free land), instead of most of the payments from the cultivators.

141. BRP 1821 Range 368 Vol. 8 Pelly's Jumabundy Report for 1818/19 and 1819/20 dated 18.1.1821, p. 627 para. 29. See also BRP 1822, Range 368 Vol. 37 letter dated 31.12.1822 p. 4,325 para. 53, which points out that houses are built far apart and there is a total lack of co-operation among the villagers. BRP 1829, Range 370 Vol. 22, no. 232 dated 1.11.1829, describes the villages as consisting of several detached hamlets.

142. These data can be found in the section of the village settlement record (*botkut*) called the *therao*, which is found at the end of the *botkut* and gives details of the rental payments for occupancy tenants.

143. *Botkut* for Karambele, in Tahashil Office at Deorukh, and for Tike, in Record Office, Ratnagiri.

144. *Gazetteer* (1880) pp. 283 and 288.

145. *Census of India 1891* Vol. VII Part II pp. 393-424.

146. For example, Pune Archive, Khoti Letters, Rupal 11/1, p. 389 'Petition to government by Baloo bin Sonoo Genvla, and Mankoo bin Suttia and other Kunbi Ryots inhabitants of Subha Chiplun, Taluka Anjenwell': they have petitioned against the *khots*' exactions, but he has relations in the *Subha Kutcherry* and so they have got no redress.

147. In Ratnagiri, newcomers to a village (*badhekaris*) did not pay lower rents than long-standing inhabitants.

148. For example, though in the early years of British rule, cultivators with a grievance against the *khots* used the traditional remedy of petitioning government (there were at least 16 petitions against the *khots* between 1820 and 1850), they were either told to take their grievances to the courts (BRP 1829 Range 370 Vol. 10 no. 127 Petition dated 5.5.1829 and no. 128 Reply of the Acting Secretary for Government dated 15.5.1829.), or persistent individuals were dismissed as 'trouble makers'. For example, in BRP 1837 Range 372 Vol. 13 no. 2954 dated 5.5.1837, 'Report on a complaint by Beeknak Valed Goundnak Havildar', who had petitioned several times against the *khots*; the report dismissed his complaints and described him as a 'turbulent bad character'. Where the petitioners claimed to represent a large body of cultivators, and the Collector sent an official to investigate, the cultivators sometimes denied that they had any grievances at all, presumably because they were frightened of the repercussions from the *khots*. (BRP 1831 Range 370 Vol. 48 no. 2665 dated 6.4.1831 Report on petition of 13.10. 1830, and Pune Archive, Khoti Letters, Rupal 11/1, letter no. 5 of 1839 dated 14.1.1839 report on a petition against *veths* from *ryots* in Anjanvel.) Petitions against the *khots* appear to have ceased after 1850, as presumably their futility became apparent.

149. G. Omvedt, 'Migration in Colonial India: The Articulation of Feudalism and Capitalism by the Colonial State' *Journal of Peasant Studies* 7,2,1980.

CHAPTER 5

THE PROCESS OF AGRICULTURAL CHANGE

I Introduction

It has been argued that the poverty which stimulated the initial migration from Ratnagiri in the 1840s derived primarily from the inequality in agrarian relations which caused the poor and the low caste to pay a disproportionate amount in rent and tax. It has been shown that this inequality was exacerbated by the military and political system of the *Maratha* state as it developed in the later eighteenth century, and furthermore increased significantly in the first century of British rule in the district. Though these factors can be seen to explain much of the out-migration from the district in the first half of the nineteenth century, the demographic data suggest that a further explanation is required for the continuing rise in migration in the later part of the century. Population began to rise rapidly from the 1850s, possibly as a result of the rising incomes generated by emigration. Though there was still probably sufficient cultivable land to feed the population in early nineteenth century Ratnagiri, there were no large tracts of fertile land left unoccupied in the Konkan, as there were in parts of the Deccan. Therefore, as population began to rise in the mid nineteenth century, the extension of cultivation had an immediate impact on the fragile ecology of the district, an impact intensified by rapid deforestation. It is suggested in this chapter that rising population from the 1850s led to a rapid deterioration in the quality of the soils which seriously threatened agricultural production in the district in the later nineteenth century. It is also argued that in response to this agrarian crisis cultivators intensified cultivation, but not sufficiently to

prevent a deterioration in the acreage per head and yields per acre in most parts of the district. In Chapter 6 it is further contended that the response of cultivators to the crisis in agriculture was conditioned by the land tenure system, and that in the later nineteenth century migration became an alternative option to investment in increasing agricultural production.

II The evidence on trends in agricultural output in Ratnagiri

Any discussion of trends in output in agriculture in Ratnagiri must first be placed in the context of developments in India as a whole over the nineteenth and early twentieth centuries. G. Blyn's study of official statistics which is usually taken as the point of departure in the debate on trends in output in Indian agriculture from the late nineteenth century, concludes that over India as a whole there was a decline in crop yields and in *per capita* supply of foodgrains between 1890 and 1947.¹ However, this conclusion is based mainly on trends in the north of India, and yields in the Bombay Presidency did not drop significantly overall, though there were considerable variations between crops.

Blyn's conclusions have been challenged by a number of historians. C. Dewey² and A. Heston³, for example, have pointed out the inadequacy of the method used to obtain the 'revenue yield', which lay at the heart of Blyn's analysis. A particular weakness of the 'revenue yield' statistics is that they were based on the 'standard yield' which was the yield which each crop was supposed to bear in a good year. In the Bombay Presidency a systematic compilation of 'standard yields' was put together in 1884, and revised in subsequent years, but it was based only on a very unscientific selection of crop cutting experiments, and Heston argued in his analysis of the statistics for Bombay Presidency that these were not thorough enough to give an accurate picture of crop yields during this period.⁴ In addition, standard yields remained virtually unchanged into the 1940s, no attempt having apparently been

made to update them after 1897. Heston argued that most of the decline in yields of crops which Blyn identified, was a result of a steady decline in the 'condition factor' - the assessment of the quality of the season made by local officials each year, which was multiplied by the standard yield to obtain the revenue yield statistics. Heston concluded that a steady decline in the actual state of the seasons was improbable, suggesting that the decline in the condition factor was engineered for political purposes. As a final demonstration of the inaccuracy of the revenue yield statistics, Heston compared the revenue yields for 1946-61 in Bombay with the scientifically conducted crop cutting experiments for the same period, and showed that quite large and random variations between the two occurred.⁵ Though A. Desai has taken issue with Heston,⁶ he has not been able to demonstrate convincingly that the revenue yield statistics can be relied upon; while Dewey has also pointed out the weaknesses of the aggregated revenue yield statistics for each Presidency.⁷

For periods before the revenue yield statistics begin, of course, the evidence on yields is even less easy to come by, consisting of occasional and unscientific crop cutting experiments by British officials, and otherwise on the traditional estimates of the produce of a *bigha* used for calculating revenue by pre-colonial states. Using data from sixteenth century North India, Desai concludes that yields per acre of crops fell significantly between the sixteenth and twentieth centuries because, in the sixteenth century population was still low enough for cultivators to concentrate production on the best land, while by the twentieth century a lot of marginal land had been brought into cultivation.⁸ General arguments such as that of Desai, which suggest that output per acre was falling gradually over a long period from the sixteenth century, are quite convincing. Ironically, however, no firm conclusions can be drawn on trends in output per acre for the more recent periods, i.e. from the mid nineteenth to the mid twentieth centuries. Attempts to estimate the output of agriculture in this period, therefore, must be guided as much by indirect indicators of yield per

acre, such as methods of cultivation, seed selection, manuring, and irrigation, as by the revenue yield statistics, and otherwise must rely on data on land use, which can indicate moves to more intensive cropping patterns and higher yielding crops, and on the total area under cultivation.

The statistical data available for Ratnagiri district on crop yields per acre demonstrate clearly the problems and inadequacies of the system of estimating yields. In 1844 the average yield per acre of rice was given as 22 capacity *maunds* (approximately 2,024 lbs per acre),⁹ but this was derived not from any crop cutting experiments but from a rough inspection of the standing crop (*nazar pahanl*) which has been shown elsewhere to be very inaccurate.¹⁰ This estimate also corresponds closely to the conventional estimate of 25 *maunds* per *bigha* for rice land used by landlords in assessing crop share rent, so it may well be an overestimate for most rice crops in the mid nineteenth century though it was certainly an achievable output.¹¹ The data on yields per acre in the early twentieth century given by P. C. Patil based on data from the Director of Agriculture's reports for 1906-20, show that the 'normal out-turn' or 'standard yield' for rice in Ratnagiri was 1,020 lbs per acre, and the 'average out-turn' or 'revenue yield' (normal out-turn x condition factor) was 830 lbs per acre.¹² However, the inadequacies of the methods of reaching the 'average out-turn' figures was well known to officials at the time. The method of assessing the condition factor was by an 'anna valuation' scale, assessed by the *mamlatdars*. When the system was first used, in the 1870s and 1880s, in Bombay, 12 annas was used as the standard of an average crop, but in the mid 1880s, this was changed to 16 annas, and as a result the Director of Agriculture felt that the condition factor was underestimated.¹³ In 1897/8, however, they returned to the 12 anna system, thus deepening the confusion.¹⁴ In addition, it is not clear how the 'normal out-turn' figures were arrived at, but they were felt by officials to be less than adequate, and plans were made to replace them with figures derived from crop experiments.¹⁵ The crop experiments themselves, however, were much criticised,

particularly the early ones,¹⁶ and attempts to do anything other than tinker with 'the formula' were soon abandoned.¹⁷

One of the main difficulties in Ratnagiri is the great variety of types of land on which each crop was grown, which considerably affected the yield and made it very difficult to arrive at a standardised figures for any crop. In the 1880s and 1890s, for example, out-turn in rice land varied from 3,553 lbs per acre (an outstanding crop), to 1,500 lbs per acre for rice on good soil in a good season, to 800-900 lbs per acre for poorer quality hill and salt rice land in an average season.¹⁸ The only scientific crop experiments conducted in Ratnagiri, against which these figures can be measured, were in the 1950s, and they show that the actual crop cutting yields in Ratnagiri at that time for both rice and *nagli* were higher than the Revenue yields the same period (which were still based on the nineteenth century system).¹⁹ Interestingly, the same conclusion can be drawn from data on crop experiments in 1890, which also compare crop cutting yields with revenue yields on particular plots of *nagli* (though with *harik*, revenue yields are higher).²⁰ The crop cutting yields of the 1950s are actually closer to the revenue yields of 1906-20 than to the revenue yields of the 1950s, but this does not imply a greater accuracy in the former. The only firm conclusion which can be drawn from these figures is that, while the land was obviously still capable in the late nineteenth century of bearing crops as good as those which the conventional estimates of the early nineteenth century suggested it could, much of the yields per acre in the late nineteenth century were well below these levels. No real overall conclusion can be drawn from the data as to the trends over the century, but it seems reasonable to suppose that as more marginal land was being brought into cultivation in the course of the century, this would be reflected in a decline in yields per acre.

III The data on land use in Ratnagiri district in the nineteenth century.

In the absence of any reliable statistics on yields per acre of crops in Ratnagiri in the nineteenth and early twentieth century, any attempt to estimate the trends in agricultural output of the district over this period must rely primarily on data on land use. Statistics on the area under cultivation, and the acreage under each crop, are unfortunately rather poor for Ratnagiri district compared to many other areas of Bombay Presidency in the nineteenth century. This is largely because there were no officials in *khoti* villages who could collect such data, and most of the *khots* refused to do so under British rule. The agricultural statistics which are available are contained in the following sources:

- i) revenue records from the *Peshwas'* survey of 1789 which give data on the area under cultivation and fallow in individual villages, the length of fallow, the uses of uncultivated land, the area under each crop and the assessment payable by the village, and in some cases also the number of taxable fruit trees in the village. These records are not available for all villages, and I have studied in detail the records of 34 villages in *tarf Sangameshwar* of Sangameshwar *taluka*.²¹
- ii) the experimental survey of Ratnagiri and Sangameshwar *talukas* made in 1827 by Captain Dowell. Statistics on the area of rice and hill land under cultivation and fallow and the assessment payable is available for each of 251 villages in Ratnagiri and Sangameshwar *talukas* in *Dowell's Notes*,²² and also a summary of the area and types of land under cultivation in 277 of the villages surveyed by Dowell, with a comparison with the same villages at the 1789 survey.²³
- iii) the papers of the original survey and settlement of the Collectorate between 1867 and 1892, and of the revision settlements. The settlement reports for each *taluka* give data on land use and land holding obtained by the survey in a summarised form, and details of land use and assessment for each village in the *taluka*, though unfortunately, because of the nature of the system in Ratnagiri the land use data for both the

Original and Revision Settlements are identical. The village survey records held in the *taluka* offices and the district record office, though not available for every village, record the names of survey occupants, and details of their holdings as determined by the survey settlement, divided into rice, *rabi* (winter cropped), dry crop (hill) land and garden land.

iv) the Director of Agriculture's publications, particularly the annual reports from 1886/7, which provide annual statistics on the area under different crops, the area of fallow land, double cropping, and irrigation and the amount of agricultural stock for Ratnagiri district, though they are based on information from only a small number of villages in the district. Data on yields per acre and on agricultural practices can also be found in the Department of Agriculture's 'Crop Experiments' from 1879/80, though the data on yield per acre should, as has been explained above, be treated with great caution. Data on agricultural practices and yields per acre is also found scattered throughout the Revenue Records, and in the personal papers of British officials.

The exact nature of the data, and the problems which the statistics present, are discussed in Appendix III. Because of the inadequacy of the data for the district as a whole, I have decided to concentrate my discussion of land use in the district primarily on the two *talukas* for which the best data are available: Ratnagiri and Sangameshwar *talukas*. These *talukas* covered an area of 828 square miles, nearly one quarter of the total area of the district (3,789 square miles), and are representative of the different geographical regions of the district, spanning the coastal rice lands, the creeks and plateaux of the centre, and the foothills of the Ghats. Comparable data for the whole of each *taluka* from the late eighteenth century to the early twentieth century is unfortunately unavailable, but a limited amount of data is available for 277 of the 327 villages in the two *talukas*, and more detailed and extensive data is available for sub-groups of villages which makes it possible to examine agricultural change in the *talukas* over a period of

100 years, spanning 1789 to 1885. The groups of villages which will be considered are as follows:

Group A: 277 villages in 1789 and 1829. These villages were surveyed by Captain Dowell in 1827 and also had eighteenth century records available to Dowell, from which he was able to make a comparison of the changes in land use between 1789 and 1829. Data from these villages is presented in Tables 5.1 and 5.2.

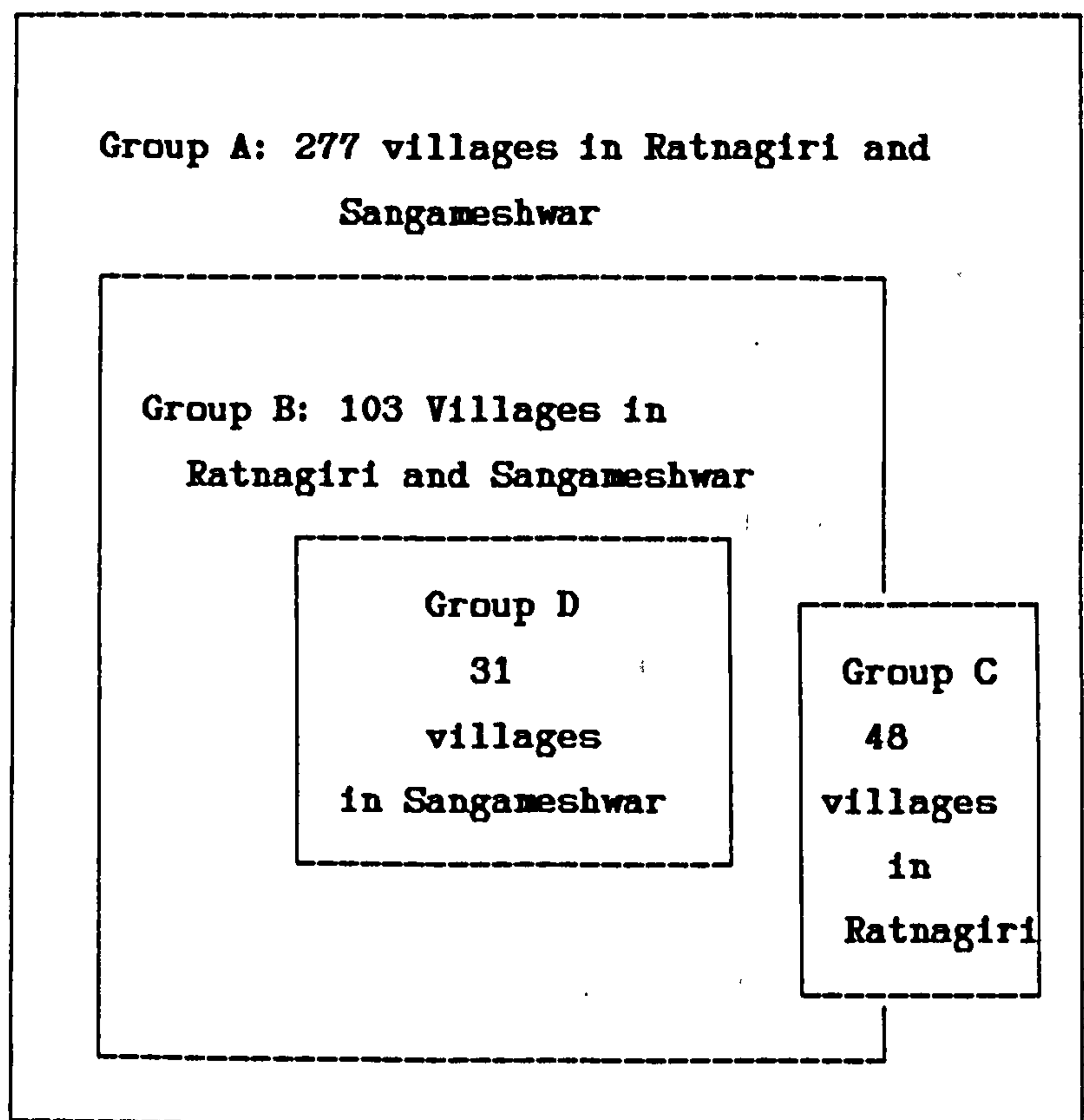
Group B: 104 villages in 1829 and 1869/85 (68 in Sangameshwar *taluka* and 36 in Ratnagiri *taluka*). These villages are almost certainly all also in Group A, though Dowell did not specify the villages included in Group A. There are detailed entries in *Dowell's Notes* for these villages, giving land use and population, and I also have data on land use for these villages from the village records of the survey settlement of 1867/85. These data can be used to compare the area of arable rice land (including fallows) in 1829 and the period of the settlement (1868/70 in Ratnagiri, 1885 in Sangameshwar). A comparison of *rabi* and *bagait* land between these two periods cannot be made, since they are not included in the data in *Dowell's Notes*. It is also difficult to make comparisons on hill cultivation, since data on hill land in the settlement records are only given for cultivable hill land (which included pasture land and cultivable waste as well as current fallows); any attempts to estimate cultivated hill land from this must inevitably be rather speculative. Data from these villages is presented in Table 5.1 and 5.3 (though only 99 of the villages are used in Table 5.3 because 5 of the villages have no population data).

Group C: 48 villages in Ratnagiri *taluka* (*tarf* Sytowde, *tarf* Dharmanse and *tarf* Phungus) in 1789 and 1869. A comparison of the area of rice land at the *Peshwas'* survey, with the area of rice land found by the survey in 1869, is given by the survey officers for these villages. Some of these villages are also found in Group B. Data from these villages is presented in Table 5.1.

Group D: 32 villages in *tarf* Sangameshwar, Sangameshwar *taluka* in 1789, 1829 and 1885. For which I have a copy of the eighteenth century land

revenue records (the *pahani jirayet*: see Appendix III), an entry in *Dowell's Notes* for 1829, and the *botkut* of the survey settlement of 1885. It is possible, therefore, to examine the extension of the area of cultivable rice in these villages over a whole century. Also, population data is available for eight of these villages over the same period, which makes it possible to examine the relationship between population growth and land use. All these villages are also included in Group B. Data from these villages is presented in Table 5.1 and 5.4.

Clusters of villages in Ratnagiri and Sangameshwar taluka for which data is available



The data from Groups A, B, C and D are presented in Tables 5.1, 5.2, 5.3 and 5.4.

IV An interpretation of the data

The farming system of Ratnagiri, like that of the neighbouring coastal districts of the Konkan, Thana and Kolaba, is quite distinct from that of the major part of the Deccan districts of Maharashtra. The agrarian system of the Deccan is predominantly one of rain-fed permanent cultivation.²⁴ Because the semi-arid climate prevents excessive leaching of the soil, it is possible, using crop rotation, to cultivate 'dry' (unirrigated) crops almost indefinitely with very low fallows, even without the input of manure.²⁵ In contrast, Ratnagiri is an area of very high rainfall.²⁶ This makes it easy to grow wet rice in the valley bottoms, and even the steep hill sides if they were terraced, which was much more productive per acre than 'dry' crops, especially as it needed no fallowing and little manure.²⁷ These pockets of highly productive land, however, represented only a small area of the district, the majority of the land being poor, thin, hill soils over volcanic rock. In 1887/8, 29% of the area of Ratnagiri for which statistics were available was classified as uncultivable, of which only 1% was forest, the rest mainly rock, and of the gross cultivable area at the same period, 60% was hill cultivation of 'dry' grains (mainly the dwarf millets, *nagli*, *vari* and *harik*), a much higher proportion than in the neighbouring Konkan districts of Thana and Kolaba.²⁸ In this hill land, only semi-permanent and shifting cultivation on long fallows can be carried on, since the heavy rainfall in the monsoon leaches the soil, removing many of the nutrients.

It seems likely that before the eighteenth century, most of these hill lands, except the very best, were cultivated by shifting cultivation, with fallows of about 20 years, which would allow trees and brushwood to grow up, and avoided the worst problems of soil leaching.²⁹ By the late eighteenth century, however, most of the hill land appears to have been cultivated on a system of semi-permanent cultivation. Data in the eighteenth century revenue records shows that fallows for steep hill land, which would have been cultivated by shifting cultivation before the

eighteenth century, varied between one and eight years, though some of the steep hill land was still permanent pasture. In Dhamapur village in the central plateau of Sangameshwar *taluka*, for example, out of 13 *chahurs* of cultivated steep hill land, 5% was on one year fallows, 5% on two year fallows, 9% on three year fallows, 9% on four year fallows, and 69% on five year fallows. A further seven *chahurs* was not cultivated, but used as grass land and grazing land.³⁰ Shifting cultivation had not completely disappeared, however, and there was still some remaining in the remoter hill areas of the *taluka* in the 1820s. Captain Dowell described how the village land in some Ghat villages was divided into several sections of 20-50 acres called a *padan* and the whole village, along with some cultivators from surrounding hamlets, cultivated each year in every *padan* which was ready for cultivation. The land would be prepared by burning the jungle and brushwood and roughly digging the land as there was no plough cultivation in this area. Two or three years of crops were followed by 8-15 years of fallow, to allow the brushwood and trees to grow up again.³¹

However, this pattern began to change as population rose during the nineteenth century. The data from Tables 5.1 and 5.2 show that the total area under cultivation increased considerably in Ratnagiri and Sangameshwar *talukas* from the late eighteenth century to the late nineteenth century, and some of the increase in the net area cultivated in the earlier nineteenth century can probably be attributed to the extension of the margin of cultivation into land not previously cultivated. Though some new land was created by draining marsh land, most of this extension of cultivation was into hill land previously used for pasture or left waste.³² Unfortunately, it is not possible from the data available to give precise data on the pattern of hill cultivation through the nineteenth and early twentieth centuries. Though some of the Peshwa's village surveys from 1789 do give considerable detail on the uses of hill land, including periods of fallowing, later surveys were less informative. An examination of the village survey records for 28 villages in *tarf* Sangameshwar in 1789, shows that 64%

of uncultivated but cultivable village land was current fallows, 10% grass land, or used to provide green manure to burn on the fields, 8% grazing land for cattle and 18% unspecified.³³ In contrast, in 1892/3 the Director of Agriculture's report on 15% of villages in the District showed that 71% of cultivable uncultivated land was true fallow, 3% grass land, 11% for green manure, and 15% left uncultivated for other reasons (probably mainly pasture).³⁴ This suggests that land formerly used for pasture or left waste was increasingly being drawn into the cycle of cultivation in the course of the nineteenth century, but clearly no firm conclusions can be drawn on the basis of such a limited comparison.

A more reliable impression of the trends in cultivation in hill land can probably be gained from the more general observations of British officers in the district. The Collector of Ratnagiri, A. Elphinstone, pointed out in 1843 that most of his informants believed that hill land brought into cultivation since the *Peshwa's* last survey had been of very poor quality, usually on steep hill sides.³⁵ Furthermore, the disappearance of much of the forest in the *taluka* in the first half of the nineteenth century suggests also an extension of cultivation into areas never - or rarely - cropped. In the seventeenth century, the country had been heavily wooded; by 1849 it was already being pointed out that much forest had disappeared.³⁶ As the century progressed there were accounts of the dramatic reduction in tree and brushwood cover,³⁷ and the stunting of the growth of trees to provide *rab* manure, the most common form of manure in the district, consisting of leaves and branches burnt on the seed beds before planting.³⁸ The disappearance of the forest and tree cover is clearly in part a result of the extension and intensification of cultivation, as trees were cut down to clear the new land for cultivation, and the shortening of fallows prevented the tree cover regrowing. In addition, the government's policy on forest trees added to the problems. Demand for timber was growing rapidly in Bombay in the nineteenth century, especially for shipbuilding and housebuilding. Under the *Peshwas*, timber such as teak

apparently belonged to the government. The British Collector in Ratnagiri changed this policy, however, in 1825, and allowed *khots* and *dharekaris* to cut and sell trees on their land as they wished. This policy led to a rapid depletion of stocks of hardwood trees such as teak, and in 1851 the government resumed its rights over trees; *khots* and *dharekaris* were not allowed to cut trees without permission. Between 1865 and 1868, however, these rules were relaxed to allow cutting of trees by first *dharekaris* and then *khots*, though new restrictions were imposed on the cutting of teak and blackwood in 1871.³⁹ By this time, however, the damage had been done. In 1896 there were only 22 square miles of reserved forest in Ratnagiri district.⁴⁰ It seems clear that the disappearance of much of the forest and tree cover in Ratnagiri had far reaching effects on agriculture in the district. It led to soil erosion on the steep slopes, as evidenced by the silting up of some formerly navigable rivers;⁴¹ reduction in tree cover also appears to have affected the water supply to, and water retention of, the fields.⁴² This led to rapidly decreasing soil fertility, as grass and brushwood were not as effective as forest in maintaining the quality of the soil, particularly in areas of heavy rainfall and laterite soils. This meant that manuring of the fields became essential; cowdung could be used, but this was in short supply, and the most common form of manuring in Ratnagiri was *rab*.⁴³ Though this was a cheap and effective way of increasing yields,⁴⁴ the cutting down of brushwood and the pollarding of trees which accompanied it had a further detrimental effect on the quality of hill soils. By the 1920s, the hill land in Ratnagiri could be described as '*among the most barren in the Presidency*'.⁴⁵

It appears that the extension of cultivation in Ratnagiri during the nineteenth century under pressure of rising population, along with the destruction of the forests, had a very damaging effect on the ecology of the district. This may have been further reinforced by the intensification of hill cultivation through shortening of fallows, which would allow only a covering of grass and brushwood to develop in between periods of cultivation. The cultivators themselves pointed out to

British officials that periods of fallowing were decreasing, and it seems probable that shifting cultivation disappeared from the district in the first half of the nineteenth century. Cultivators were already explaining to Captain Dowell in the 1820s that hill cultivation used to be on 20 or 25 year fallows (which could be defined as shifting cultivation), but that increased population had reduced it to 10 year fallows.⁴⁶ In 1850 cultivators in Lanje complained to Captain Wingate that rises in population had led to shorter fallows.⁴⁷ However, the statistical data on fallowing, which is admittedly very limited, do not show any marked reduction in fallowing between the late eighteenth and the late nineteenth centuries. In 1789, data on 28 villages in Sangameshwar *taluka* shows that 70% of the net cultivated area plus current fallows was fallow, while in 1903/4 the Director of Agriculture's statistics for 188 villages in Sangameshwar *taluka* show that 71% of the net cultivated area plus current fallows was fallow at that date.⁴⁸ Other statistics from the Director of Agriculture's reports show that 60% fallow in Ratnagiri *taluka* in 1908/9 and 1920, 51% fallow in 177 villages scattered through the district in 1892/3, 59% fallow in the district as a whole in 1931 and 65% in 1950.⁴⁹ However, it is difficult to interpret these statistics, because the net area cultivated included increasing areas of permanent rice land during the nineteenth century. On the one hand, this suggests that the statistics may conceal an actual increase in the percentage of hill land left fallow each year; on the other hand, the land which was converted to rice land was often cultivated on short fallows already, and so conversion to rice land may have had little impact on the percentage of the net cultivated area fallowed, though it undoubtedly increased the pressure on the remaining hill land, by increasing the demands for *rab* manure.

It appears that the extension and intensification of hill cultivation as a response to rising population is likely to lead to a deterioration of yields per acre and could in fact have been counter-productive. A second alternative open to cultivators faced with rising population pressure on land, was the increase in rice cultivation. The extension of

wet rice cultivation involved the creation of level fields, surrounded by embankments known as *bunds*, which would flood in the monsoon to enable the rice to grow in standing water, or which could be artificially flooded by bringing water from streams through channels (*pats*) or from wells and rivers by means of lifts (*budkis*) or Persian wheels.⁵⁰ Conversion of land to wet rice cultivation usually involved an intensification of cultivation, in that wet rice land was usually created out of land previously cultivated with 'dry' grains on a fallowing system, while wet rice cultivation needed no fallows. It was therefore possible to increase output per acre substantially by introducing wet rice cultivation.

The data available suggests that wet rice cultivation in Ratnagiri district increased throughout the nineteenth century and early twentieth century, and apparently increased slightly faster than hill cultivation, but that the rates of increase varied considerably in different parts of the district at different periods. In Sangameshwar *taluka*, as can be seen from Table 5.5, there was an increase in the percentage of the Gross Cultivated Area allocated to rice from 23% to 32% between 1789 and 1914/15, and Table 5.1 shows that rice cultivation increased at a steady pace over the century, doubling in extent between 1789 and 1885. In Ratnagiri *taluka* rice cultivation also appears to have increased at a steady rate, rather similar to that of Sangameshwar *taluka* during the early and mid nineteenth century, but Table 5.5 shows that there was no relative increase in rice cultivation compared to other crops between 1877 and 1915. However, there appear to have been different patterns of growth in different areas of the *talukas*. Table 5.3A shows how the acreage of rice and hill land per head changed in different parts of Ratnagiri and Sangameshwar *talukas* between 1829 and 1869/85. In Ratnagiri *taluka* the increases in rice cultivation kept pace with the growth in population more closely in the north of the *taluka*, in *tarf* Sytowde, Phungus and Dhamanse, and as a result rice acreage per head fell less sharply there than in the south of the *taluka* in *tarf* Kuriat Nevre. In Sangameshwar *taluka* Table 5.3B shows that the acreage of rice

land per head dropped less sharply in the more prosperous *tarf* Sangameshwar and Kondivre than in *tarf* Devrukh. Data on the other *talukas* in the district, though patchy, tends to confirm this impression of varying rates of increase in rice cultivation. As can be seen from Table 5.6, during the period 1789 to 1873 rice cultivation increased most rapidly in the northern *talukas* of the district, Chiplun, Guhagar, Khed, Dapoli and Mandangad, and increased very slowly in the southern *talukas* of the district, Deogad, Rajapur, Malvan and Vengurla. As can also be seen from Table 5.5, in the period 1877-1915 the proportion of rice cultivation on the Gross Cultivated Area increased much more rapidly in the northern *talukas* of Chiplun, Dapoli and Khed than in the rest of the district; while in 1877 the northern *talukas* still lagged behind the south, with only 9-10% of the Gross Cultivated Area under rice, by 1915 the proportion of rice to total cultivation in the north was only a little less than that in the south. Moreover, the rapid increase in rice cultivation in the north was at the expense of hill cultivation, which appears to have dropped significantly as a proportion of Gross Cultivated Area from 1877 to 1915.

If the increase in rice cultivation was related to the rise in population, one might have expected that the greatest increase in rice cultivation would have occurred in those areas of the district where population was rising fastest, or where the acreage of land per head of the population was lowest. However, this does not always appear to have been the case. In some areas, the extension and intensification of cultivation appears to have more closely followed the rise in population than in others. As may be seen from a comparison of Table 5.6 and Table 1.7, the districts with the most rapid increase in rice cultivation in the later nineteenth and early twentieth centuries were those with the lowest population increases during that period; nor did they have a particularly unfavourable ratio of population to land in the 1870s. As a result, the acreage per head of rice in Mandangad, Dapoli, Khed, Chiplun and Guhagar *talukas* must actually have increased significantly between 1891 and 1921; on the other hand, in Malvan and Deogad *talukas* in the

south of the district, it seems likely to have decreased. Similar variations can also be found within *talukas*, as can be seen from Table 5.3A; the acreage of rice land per head dropped most strikingly in villages in *tarf* Kuriat Nevre, the area round Ratnagiri town, but in contrast remained almost the same in villages in *tarf* Sytowde in the north of the *taluka*. This suggests that other factors aside from pressure of population dictated the decision to increase rice cultivation, and that the relationship between rice cultivation and population pressure was not a simple one.

Changing from 'dry' cultivation to wet rice cultivation was a major undertaking, requiring considerable investment of time and effort to lay down the rice fields. It was however possible for cultivators to increase output per acre on existing fields simply by increasing inputs of fertilisers or by increasing inputs of labour to improve techniques, or by selecting crops which were more productive, in gross output or in market value terms. There is some evidence that attempts were being made to find new fertilisers in the nineteenth century. Seaweed was tried but reportedly found unsatisfactory; small fish were being used as manure near the coast even in the early nineteenth century,⁵¹ and were being imported a good way inland by 1892,⁵² to be used for cultivating *nagli* and for manuring the ground for hill crops sown broadcast after germination,⁵³ though high price must have limited its use.⁵⁴ Oil cakes were also used, as was village refuse.⁵⁵ Great care was taken to preserve cattle dung,⁵⁶ and the composition of *rab* itself seems to have been changing over the century, with more grass and dung used instead of leaves and branches, and rice and millet stalks added.⁵⁷ However, these efforts probably did little more than replace the disappearing sources of traditional *rab* manure. There is not much evidence to suggest that other measures were taken to improve the output of individual crops. Thus, there is no evidence of attempts at selecting seed or choosing better varieties of a crop: in fact, there seems to have been a trend in the late nineteenth and early twentieth centuries

towards the cultivation of the early and less productive varieties of rice, at least in Ratnagiri *taluka*,⁵⁸ and even by the 1930s there was little selection of seed (30% of samples taken in the district were of rices other than the main type in the sample), and the majority of rices in the southern part of the district were still the lower yielding 'red' variety.⁵⁹ Similarly, there is little evidence of change in methods of transplanting and sowing crops, which can definitely improve yields, though there seems to have been an increase in transplanting of *nagli*.⁶⁰ The seed rate appears to have changed little over the century, which suggests that few improvements in technique occurred during that time.⁶¹

Another strategy open to cultivators was to switch to higher yielding crops, and the evidence of Table 5.5 suggests that there was indeed some switch to cultivation of the higher yielding grains and pulses in hill land in Ratnagiri district during the nineteenth and early twentieth centuries. Among the dry grains cultivated, there appears to have been a trend towards crops giving a higher return per acre, since there was a marked swing away from *harik*, and to a lesser extent *vari*, in favour of *nagli* in the late nineteenth and early twentieth century. All these were millets, which could be grown in poor soil, though *nagli* was usually grown first in the cycle of crop rotation. Data on out-turn per acre shows little difference between *nagli* and *harik*, with *vari* apparently the most productive, but *nagli* apparently had a much higher return to seed, and perhaps most importantly provided good straw for fodder, which *vari* and *harik* did not.⁶² There was also a slight trend towards the growing of pulses in the late nineteenth and early twentieth century, but they only came to occupy a small proportion of the Gross Cultivated Area.

Though a move to higher yielding crops may have increased output per acre during the century, cash cropping does not appear to have made a significant contribution to solving the problems of agriculture in the district. The specialised crops grown specifically for sale rather than subsistence consumption, mainly sugar, hemp and 'garden' produce, occupied only a very small proportion of the Gross Cultivated Area

throughout the century (see Table 5.5), and it is not possible to gain any information on the proportion of subsistence crops such as rice which were sold in the market and whether this increased over time. Climate and soil made it less easy to grow successfully in Ratnagiri Western India's most important cash crop, cotton, or the new, high calorie per acre crops such as potatoes and ground nuts which were successfully established in the Deccan at this period.⁶³ The main cash crops in Ratnagiri in the nineteenth century were sugar, hemp and 'garden' produce such as coconuts, mangoes, cashewnuts and betelnuts. The amount of sugar cane cultivated was small (504 acres in 1845/6 rising to 1,574 acres by 1877/8, and 1,726 by 1914/15) and concentrated largely in the south of the district, particularly in Malvan.⁶⁴ Hemp cultivation, minimal in the eighteenth century because of high tax, (105 acres in the 1780s, 91 acres in 1837) had risen after tax reductions to 860 acres in 1847/8 and 5,096 by 1877/8;⁶⁵ in the late nineteenth and early twentieth century the main increase was in Deogad and Rajapur where the soil was most suitable for hemp cultivation,⁶⁶ though in 1914/15 still only 1.5 % of the total cropped area of the district was under hemp.⁶⁷

It would have been possible to increase cash cropping by using irrigation to create gardens with perennial tree crops such as mangoes, coconuts, betelnuts and cashewnuts. Several systems of irrigation were in use in Ratnagiri throughout the nineteenth century - irrigation from wells using Persian wheels, irrigation using lifts or *budkis* to raise water out of the creeks onto the neighbouring fields, or the system of *pats*, stone channels which led the water from streams onto the fields, and finally tanks which shored the monsoon rain water which was then led by *pats* onto the fields.⁶⁸ But throughout the nineteenth and early twentieth centuries, the use of irrigation in Ratnagiri was very limited. Cultivation in irrigated gardens, which grew mainly vegetables, cashew and betelnuts, increased in the early nineteenth century, at least in Ratnagiri and Sangameshwar *talukas* (see Table 5.1 and 5.2), but it is not possible to assess the extent of coconut and mango cultivation at

this period as taxation was by trees in the early nineteenth century, which cannot be compared with the settlement records on the acreage of garden land later in the century; there is some evidence to suggest that both tree and garden cultivation decreased in the mid nineteenth century,⁶⁹ though the number of wells used for irrigation increased.⁷⁰ From 1877/8, garden and tree cultivation (under the heading 'garden and miscellaneous') increased in some of the northern *talukas* of the district, but most of the garden cultivation was concentrated in the south, particularly Malvan, where there was little change: in 1892/3 orchard and garden produce occupied just under 6% of the GCA, while in 1917/18 it occupied 7% (see Table 5.5).

It would also have been possible to increase output per acre considerably by double cropping of the rice fields, but there was little development of double cropping over the century. Captain Dowell commented in 1829 that 'dry season' cultivation (double cropping with irrigation) had not increased at the same rate as 'monsoon cultivation' in Ratnagiri and Sangameshwar *talukas* since the *Peshwa's* last survey.⁷¹ By the first decade of the twentieth century only 7% of the Gross Cropped area of Ratnagiri *taluka* was double cropped,⁷² and even in 1930/1 only 4.6% of the total Gross Cultivated Area of the district was double cropped.⁷³ This was in part a consequence of the length of the monsoon in the Konkan. In the Deccan and Gujerat, where the monsoon was longer and the water retention of the soils better, it was possible to grow both *kharif* and *rabi* crops (monsoon and dry season crops), often in succession, on the same land, without recourse to irrigation, and the annual harvest was almost equally divided between the *kharif* and the *rabi* crops. In the Konkan, however, and especially in Ratnagiri district, because the monsoon is heavy but short, and the soil does not retain the water well, only a very small proportion of *rabi* crops can be grown without irrigation. As can be seen from Table 2.5, the harvest in Ratnagiri was concentrated in one short season, in contrast to cultivation in the Deccan and Gujerat. As a result there was relatively little double cropping in Ratnagiri, as double cropping could only be

carried out with extensive artificial irrigation, which required a considerable investment of time and labour. In 1892/3 only 6% of the gross area of rice under cultivation was artificially irrigated,⁷⁴ and it is clear that the large scale investment to extend the cultivating season was not being made in the district.

V Conclusion

The evidence presented here suggests that in the mid and late nineteenth century there was a growing crisis of agricultural production in Ratnagiri. As population began to expand in the mid century, cultivation extended into increasingly marginal land; by the second half of the nineteenth century most cultivable land seems to have been included in the cycle of cultivation, and it was a commonplace observation among British officials that there was no spare cultivable land available in the district.⁷⁵ As a result, the cultivated area per head of the population began to fall. Data on villages in Ratnagiri and Sangameshwar talukas shows that cultivated acreage per head was dropping between 1830 and 1867/85 (see Table 5.3). Data from the Department of Agriculture also indicates that acreage per head was dropping in the district as a whole; in 1889/90 the net cultivated acreage per head in Ratnagiri District was 0.59, while by 1921 this had dropped to 0.48.⁷⁶ In 1887 it was estimated that 85% of the families living in the district did not have enough grain for the whole year, a judgement which was repeated in succeeding decades.⁷⁷ It also seems clear that output per acre fell over the century as poor quality hill land was brought into cultivation, and as erosion, leaching and deforestation reduced the fertility of the soil. Moreover, it seems likely that the poorer, lower caste cultivators, who farmed mainly hill land, suffered worst, since it was the quality of their hill land which was affected adversely by the lopping of trees for manure for the rice land of the wealthier cultivators. Furthermore, the disappearance of the waste land, with its tree and brushwood, removed an important source of

support from many marginal cultivators, since it provided free firewood, food, house building materials, materials for domestic utensils, medicines, ropes, rainhats and agricultural implements, and the sale of forest produce also provided a useful addition to the income of the poor.⁷⁸

However, the ecology of Ratnagiri laid down considerable restraints on the ways in which farming systems could be developed and agricultural output increased. While in the Deccan the semi-arid climate brought a constant danger of drought and famine, fewer inputs, such as terracing and artificial irrigation, were needed to extend cultivation. In the Deccan, moreover, the relatively longer growing season gave the peasants greater flexibility in planning combinations of crops, and made it possible to spread risks and experiment with cash crops. In Ratnagiri, on the other hand, the high reliable rainfall reduced the risk of famine, but severely limited the possibilities for increasing productivity of agriculture. The heavy rainfall in Ratnagiri did make it possible to cultivate wet rice by 'natural irrigation', by flooding the rice fields by direct rainfall, run-off from surrounding land or overflow from rivers. However, the monsoon in Ratnagiri was short, thus limiting the possibilities for introducing a variety of crops. Moreover, level land which could easily be converted into rice land was in short supply. Furthermore, the heavy rainfall ensured that, as cultivation in rice and hill land intensified, the demand for manure from the remaining hill land, combined with the leaching of the soil by the heavy rainfall, led to a deterioration in the fertility of hill land and hence a vicious circle of falling yields from which it was difficult to escape.

The evidence shows that the cultivators in Ratnagiri attempted to respond to the crisis by increasing output per acre, mainly through the reduction of fallowing and the extension of rice cultivation. There were also some attempts to improve techniques and adopt higher yielding crops, but these were apparently hampered by the poverty of many of the tenant cultivators, which made it necessary to use poorer quality early varieties of rice and limited the use of more expensive forms of manure.

Though these measures may have raised output per acre, this was not sufficient to compensate for the falling acreage per head and deteriorating fertility of the soil in many parts of the district. In order to maintain output per head, either a large scale adoption of a profitable cash crop for export was needed, or a much larger investment in rice cultivation and irrigation. However, this investment was not forthcoming, in spite of the existence of the *khoti* landlords who in the past had invested substantially in developing agriculture in the district. Instead, the labour which might have been used to create rice land and increase agricultural production in the district went to the mills and docks of Bombay. In Chapter 6, I shall go on to consider the extent of agricultural investment in Ratnagiri District during the late nineteenth and early twentieth centuries, and examine possible explanations for the failure of agricultural production to keep pace with population growth.

NOTES

- 1) G. Blyn, *Agricultural Trends in India 1891-1947; Output, Availability and Productivity* (Philadelphia, 1966).
- 2) C. Dewey, 'The Agricultural Statistics of the Punjab 1867-1942', *Bulletin of Quantitative and Computer Methods in South Asian Studies* 2,3,1971.
- 3) A. Heston, 'Official Yields per Acre in India 1886-1947: Some Questions of Interpretation', *Indian Economic and Social History Review* 10,4,1973; also 'A Further Critique of Historical Yields per Acre in India', *Indian Economic and Social History Review* 15,2,1977.
- 4) A. Heston, *op. cit.* (1973).
- 5) A. Heston, *op. cit.* (1977) pp. 203-5.
- 6) A. Desai, 'Revenue Administration and Agricultural Statistics in Bombay Presidency', *Indian Economic and Social History Review* 15,2,1977.
- 7) C. Dewey, *op. cit.* (1971).
- 8) A. Desai, 'Population and Standards of Living in Akbar's Time - a Second Look', *Indian Economic and Social History Review* 15,1,1977.
- 9) BRP 1844 Range 374 Vol. 44 no. 7297 dated 15.2.1844. A wider and possibly more realistic range of estimates was given by Major T. B. Jervis, *Geographical and Statistical Memoir of the Konkan* (Calcutta, 1840) p. 97, varying from 55 capacity maunds a bigha for first class rice (probably in Kolaba or Thana) to 22 maunds for fourth class rice in a good year and 15/16 maunds in an average year.
- 10) A. Heston, *op.cit.* (1977) p. 191.
- 11) Department of Agriculture Bombay Presidency, 'Crop Experiments 1892/3' letter no. A.3848 dated 27.12.1893 p. 47.
- 12) P. C. Patil, 'The Crops of Bombay Presidency' *Bombay Department of Agriculture Bulletin* no. 109 (Bombay, 1921) pp. 52-5.
- 13) *Eleventh Annual Report of the Department of Land Records and Agriculture Bombay 1893/4* (Bombay, 1894) p. 39.
- 14) A. Heston, *op. cit.* (1978) p. 198.
- 15) Department of Agriculture Bombay Presidency, 'Crop Experiments 1890/1' letter no. 2152 dated 30.7.1892 p. 2.
- 16) Department of Agriculture Bombay Presidency, 'Crop Experiments 1879/81' letter no. 1315 dated 29.6.1880 p. 1 para. 6; the Revenue Commissioner for the Southern Division, A. Crawford, who had

previously been Collector of Ratnagiri, expressed his doubts over the value of crop experiments conducted in the 1870s. In 1921 P. C. Patil, *op. cit.* (1921) p. 51, also criticised the way in which 'normal out-turn' was calculated.

17) e.g. A. Heston, *op. cit.* (1977) pp. 188-190.

18) Department of Agriculture Bombay Presidency, 'Crop Experiments 1892/3' letter no. A.3848 dated 27.12.1893 pp. 47-8, 'Crop Experiments 1893/4' letter no. A.3671 dated 1.12.1894 p. 53, and 'Crop Experiments 1882/3' letter no. 140 dated 12.12.1883 p. 7.

19) A. Heston, *op. cit.* (1977) pp. 202-7.

20) Department of Agriculture Bombay Presidency, 'Crop Experiments 1890/91' letter no. 2151 dated 30.7.1893 pp. 42-3.

21) Pune Archives, Peshwa Daftar, Konkan Jamao, Rumat 496 and 497.

22) *Dowell's Notes*.

23) BRP 1832 Range 370 Vol. 63 no. 2039 Accompaniment A to no. 2035 dated 3.9.1831 Table A.

24) For a useful classification of tropical farming systems, see H. Ruthenberg, *Farming systems in the Tropics* (Oxford, 1971).

25) See *Gazetteer of Bombay Presidency*. Vol. XII Khandesh (Bombay, 1880) pp. 148-554.

26) *Imperial Gazetteer of India* (Oxford, 1931) Vol. XXVI Atlas Plate 9: the mean annual rainfall in the Konkan (Ratnagiri, Thana and Kolaba) is one of the highest in the sub-continent. For Ratnagiri's rainfall, see *Gazetteer* (1880) p. 23.

27) For relative out-turn per acre of different crops see P. C. Patil, *op. cit.* (Bombay, 1921) pp. 54-5; in Ratnagiri out-turn per acre of rice was 830 lbs, and 493 lbs for *nagli*, one of the higher yielding hill grains. On the conditions in which rice can be grown successfully, see D. H. Grist, *Rice* (London, 1953).

28) *Annual Report of the Director, Land Records and Agriculture, Bombay Presidency, for the year 1887/8* (Bombay, 1888) pp. 24, 25 and 29.

29) True shifting cultivation was still practised in the forest areas of the Northern Konkan in the late nineteenth century: *Report of the Bombay Forest Commission* (Bombay, 1887) Chapter V.

30) Pune Archive, Peshwa Daftar, Konkan Jamao, Rumat 49 *pahani jirayet* for Dhamapur village.

- 31) This system is best described for Ratnagiri by Captain Dowell, *Dowell's Notes* pp. 20-21, but as he had clearly never encountered this method of cultivation before, his descriptions are somewhat confused.
- 32) BRP Range 373 Vol. 47 of 1847 no. 7028 dated 22.10.1845 (enclosed with no. 7024) para. 14.
- 33) Peshwa Daftar, Konkan Jamao, Rumal 496 and 497.
- 34) *Tenth Annual Report of the Department of Land Records and Agriculture, Bombay Presidency, for the year 1892/3* (Bombay, 1893) p. xxxi Accompaniment A to Agricultural Return II.
- 35) BRP Range 374 Vol. 20 of 1843 no. 4786 dated 28.2.1843 para. 25.
- 36) BRP Range 375 Vol. 22 of 1846 no. 3282 dated 30.4.1845 para. 33.
- 37) *Selections* M.S. no. 377 (Bombay, 1898) Appendix R p. 33 para. 4, on the reduction of tree cover in the North of Ratnagiri taluka between 1830 and 1870. See also Wingate's Diary Vol. 2 p. 76 dated 26.1.1850 on Lanje taluka.
- 38) *Selections* M.S. no. 574 (Bombay, 1920) p. 2 para. 9 commenting on the extreme pollarding of trees for rab.
- 39) *Selections* M.S. no. 446 (Bombay, 1907) pp. 8-9; *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. II Section III Exhibit 32 pp. 405-407.
- 40) *Administration Reports of the Forest Department of Bombay Presidency 1895-9* (Bombay, 1897) Ch. 1 para. 1.
- 41) For example, Rajapur creek (BRP 1840 Range 373 Vol. 17 no. 3204 dated 29.2.1840) and Bankot creek (MSA RD 1850 Vol. 14/1435 letter no. 98 dated 16.1.1853 Ratnagiri Revenue Report for 1851/2 para. 12).
- 42) On the effect of the reduction of jungle on the percolation of water down to the fields, see A. Gibson and J. Stokes, *Forest Report of the Bombay Presidency for the years 1849-1855/6* (Bombay, 1857), report for years 1849/50 p. 7 para. 7; this reported that cultivators round Jaigad creek, when asked whether the clearing of the woods round the creek had affected the water supply to their fields replied that: 'now the water comes down in a lump, leaving the upper lands and the holm fields arid in the dry season, whereas in former years the supply was more gradual and permanent'.
- 43) This system of manuring was used all along the Konkan, being commonly used in high rainfall areas: it was also found in the high rainfall belt which reached 50 or 60 miles east of the Ghats into the Deccan. The best descriptions of this system of manuring are found in *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. 1: E. C. Ozanne, 'Appendix on Rice cultivation in Thana' pp. 226-7 and A. P. Young, 'Appendix on Rab in Kolhapur' p. 226.

44) J. B. Knight, *Substitutes for Rab*, Department of Agriculture, Bombay, Bulletin no. 67 (Bombay, 1914); tests suggested that the value of the *rab* lay in the application of heat to the soil. Similar conclusions have been drawn recently about similar practices in Africa: see H. Ruthenberg, *op. cit.* (1971) p. 35, quoting from W. Allen, *The African Husbandman* (London, 1967) p. 74. Farmers in the Konkan also pointed out that the burning destroyed the weed seeds: *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. II Oral Evidence p. 14.

45) P. C. Patil, *op. cit.* (1921) p. 13.

46) BRP Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 9.

47) Wingate's Diary Vol. 2 p. 76 dated 26.1.1850.

48) Pune Archive Peshwa Daftar, Konkan Jamao, Rimal 497. *Selections MS* no. 559 (Bombay, 1919) para. 6.

49) *Selections MS* no. 574 (Bombay, 1920) Appendix B p. 22; *Tenth Annual Report of the Director, Land Records and Agriculture, 1892/3* (Bombay, 1893) p.33; *Statistical Atlas of the Bombay State (Provincial Part)* (Bombay, 1950) p. 14.

50) *Selections MS* no. 171 (Bombay, 1885) p. 20; BRP Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 10.

51) BRP Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 9.

52) *Selections MS* no. 253 (Bombay, 1892) p. 4 para. 10.

53) *Selections MS* no. 574 (Bombay, 1915) p. 4. Fish manure was used in all but the east and south parts of Ratnagiri taluka - areas which did not have easy access to the sea or large markets.

54) *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. II p. 188; Department of Agriculture, Bombay Presidency, 'Crop Experiments 1895/6', letter no. A/3878 dated 10.12.1896, p. 42: fish manure for half an acre of *nagli* cost six rupees.

55) *Selections MS* no. 253 (Bombay, 1892) p. 4 para. 10.

56) *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. I, E. C. Ozanne, 'Appendix on Rice cultivation in Thana' p. 228, describes the trouble taken to collect dung. He calculated that the manure of four full-grown buffaloes was needed to provide enough manure for one acre of rice land.

57) In the earlier nineteenth century, villages with a shortage of tree and brushwood such as those on the coast of Ratnagiri taluka would obtain materials for *rab* from neighbouring villages with a better supply (*Dowell's Notes, passim*) but, as pressure increased, more favoured villages seem to have been reluctant to permit this and other materials had to be found: *Report of the Bombay Forest Commission*

(Bombay, 1887) Vol. II p. 52. In Chiplun and Guhagar, areas without brushwood, cultivators burned *vari* straw and grass on their fields: MSA RD 1877 Vol. 57/305 letter no. 1193 dated 16.4.1873 p. 400-1 para. 3. The same occurred in Thana: *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. II p. 55.

58) *Selections* M.S. no. 574 (Bombay, 1920) p. 4 para. 18. The cultivators ascribed this trend to the failure of the late rains, which may have been the case (see H. H. Mann, *Land and Labour in a Deccan Village* (Bombay, 1917) pp. 94-5 for a similar phenomenon in the Deccan at the same period). The Settlement Officer felt it was caused by the decline in the size of holdings, which meant cultivators had only room to plant the early varieties, which their poverty dictated they must plant in order to eat as soon as possible after the harvest.

59) V. K. Patankar, *Improvement of Ratnagiri Rice by Breeding Part I* (Bombay, 1939) pp. 3 and 13. But it is possible that the mixing of seed types in a field was not a sign of inefficiency, but a risk minimising strategy - for similar action by modern African farmers, see P. Richards, *Coping with Hunger. Hazard and experiment in an African rice-farming system* London Research series in Geography 11 (London, 1986).

60) Captain Dowell noted in 1829 (BRP Range 370 Vol. 22 dated 1.11.1829 para. 8) that *nagli* was transplanted by laying seedlings flat on the ground. In the 'Crop experiments' of the 1880s and 1890s, however, the most usual method of transplanting described was more complex, e.g. the District Deputy Collector described in 1890-1 how holes were made with a pole, filled with fish manure, ash and dung, and the seedlings inverted and pressed down: Department of Agriculture Bombay Presidency, 'Crop Experiments 1890/1' Letter no. 2151 dated 30.7.1892 p. 26.

61) In 1829 the quantity of seed needed per acre of rice land in Ratnagiri taluka was estimated by Captain Dowell as one capacity *maund* (= approx. 70 lbs) per acre (BRP Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 8), while in the Crop Experiments of 1893/4 it was suggested that 68 lbs per acre was close to the average in the district: Department of Agriculture Bombay Presidency, 'Crop Experiments 1893/4' Letter no. A/3671 dated 1.12.1894, p. 53. In 1938 the seed rate was 78 lbs per acre: V. J. Patankar, *op. cit.* (1939) p. 5.

62) Department of Agriculture Bombay Presidency, 'Crop Experiments 1890/1' Letter no. 2151 dated 30.7.1893 p. 27.

63) Enthusiastic European officials made several efforts to establish new cash crops in Ratnagiri in the 1830s and 1840s, without success; see for example BRP Range 375 Vol. 47 no. 7025 dated 24.6.1846 para. 35 on the failure of the Ratnagiri cotton farm and other enterprises. The Revenue Commissioner for the Southern Division, E. H. Townsend, believed that the reluctance of farmers to experiment with new crops was due partly to poverty, which made the risks unacceptable, and partly 'from a too accurate knowledge of the practical difficulties which oppose many of the promising speculations

that tempt the sanguine European with assurances of a golden harvest' (para. 34).

64) BRP Range 376 Vol. 26 no. 16199 dated 1.12.1846 para. 35; *Gazetteer* (1880) p. 146; P. C. Patil *op. cit.* (1921) pp. 122-5.

65) BRP Range 372 Vol. 25 no. 7652 dated 19.8.1837 para. 33; BRP Range 377 Vol. 11 no. 13335 dated 31.4.1849 para. 50; and *Gazetteer* (1880) p. 146.

66) *Selections* M.S. no. 253 (Bombay, 1892) p. 4.

67) P. C. Patil, *op. cit.* (1921) pp. 122-5.

68) *Selections* M.S. no. 171 (Bombay, 1885) p. 20; BRP Range 370 Vol 22 no. 232 dated 1.11.1829 para. 9; and BRP Range 371 Vol. 27 no. 907 dated 26.9.1833 para. 11; tanks were mainly found in Malvan taluka.

69) MSA RD 1870 Vol. 40/583 letter no. 148/A dated 1.4.1869 para. 9, where it is suggested that much of the land in the coastal villages in Ratnagiri which had been *bagait* (garden land) under the Peshwas was by now converted to rice.

70) In 1851 there were 792 wells for irrigation in Ratnagiri and Sangameshwar talukas, while in 1897 there were at least 1,488: Pune Archives Pre-1857 Records, Revenue Commissioner Central Division Miscellaneous Files, Census of 1851; *Selections* M.S. no. 559 (Bombay, 1919) p. 4; *Selections* M.S. no. 574 (Bombay, 1920) p. 5.

71) BRP Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 10.

72) Calculated from Director of Agriculture's statistics given in *Selections* M.S. no. 574 (Bombay, 1920) Appendix B and *Selections* M.S. no. 528 (Bombay, 1915) Appendix B.

73) Calculated from *Statistical Atlas of Bombay State* (Bombay, 1950) p. 181.

74) *Tenth Annual Report of the Department of Land Records and Agriculture, Bombay Presidency 1892/3* (Bombay, 1893) pp. xix-xxx. These statistics are for only 15% of the Gross Area of the district, and it is probable that coastal villages, where rice cultivation with irrigation was more common, are over-represented in the sample.

75) BRP Range 375 Vol. 22 no. 3282 dated 30.4.1845 para. 34.

76) P. C. Patil, *op. cit.* (1921) p. 21; for 1891 see Table 1.2.

77) Government of India Revenue and Agriculture Department: Famine, 1887: Director of Land Records and Agriculture, *Report on the Economic Condition of the Masses of the Bombay Presidency* (Calcutta, 1887), p. 95.

78) *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. II p. 189; the evidence of a *Kathkari* labourer and p. 190 the evidence of a *Mahar*, both in Kolaba, who explain how they make a living. See also *idem.* Vol. III Appendix A on the uses of Forest Trees. See also BRP Range 368 Vol. 63 no. 44 dated 15.8.1824 notes that poor cultivators in Ratnagiri district get firewood from the forest and supplement their diet with nuts and wild leaves, and sell forest produce to contractors to obtain cash.

CHAPTER 6

RURAL SOCIETY AND THE CONSTRAINTS ON AGRICULTURAL INVESTMENT

I Introduction

In Chapter 5 it has been argued that the labour and cash invested in agriculture in Ratnagiri in the nineteenth and early twentieth centuries was insufficient to maintain output per head. As a result, rising population in mid nineteenth century Ratnagiri led to a crisis in agricultural production in the district in the later nineteenth century.

At first sight, these findings might appear to vindicate a neo-Malthusian view of agrarian change in pre-capitalist societies. This sees a cyclical pattern of change in pre-capitalist economies, determined primarily by demographic change; rising population with limited supplies of land leads inevitably to deteriorating output per head and ultimately to famine; famine, by cutting population enables output per head to rise again, and rising incomes will then inevitably bring another cycle of population growth. This view has been challenged by the proposition, as expressed by Boserup among others,¹ that population pressure stimulates agricultural development by forcing cultivators to innovate and improve. Examples can be found from various parts of Asia to corroborate this argument, as in the elaborate terracing and irrigation systems in parts of China, Indonesia and the Philippines, designed to intensify production in the face of rising population. A more complex anti-Malthusian argument has been developed by Brenner,² which has stimulated a long debate on the processes of economic and social change in early modern Europe.³ Brenner has challenged the neo-Malthusian argument that the demographically determined agrarian cycles in the medieval and early modern European economies can provide an explanation for changing agrarian relations, and in particular the decline of serfdom. Brenner has argued that the pre-existing structure of land holding determines

the reaction of communities to demographic change; and, that the impact of demographic change on the agrarian economy, even the level at which 'over-population' could be said to have occurred, was determined by the land tenure system and the distribution of wealth between landlord and peasant.

This debate has considerable relevance to the issue of economic change in Ratnagiri district. It has been demonstrated in Chapter 5 that rising population was putting severe pressure on the land from the mid nineteenth century, leading to deteriorating output per head. It is argued in this chapter that the system of land tenure in Ratnagiri played a major part in determining the response of the district to this crisis in agricultural production, since the structure of land holding and agrarian relations discouraged both landlords, peasants and merchants from the investment of labour or cash in the development of agricultural production. The consequent deterioration of output per head then increased the propensity of the peasantry to migrate. In this Chapter I shall examine the incentives for each social group to invest in agriculture in the nineteenth and early twentieth centuries, in order to explain their reaction to the growing agricultural crisis of the period. I have argued in the previous chapters that the poverty of the tenant farmers under the system of *khoti* tenure stimulated the onset of out-migration in the mid nineteenth century. In this chapter, I also suggest that the perpetuation of these patterns of migration into the later nineteenth century was determined not simply by population pressure on the land, but by the structure of landholding.

II The Landlords

As we have seen, there were two groups of landlords in Ratnagiri: the *khots*, and the wealthier *dharekaris* who owned more land than they were able or willing to cultivate directly. The *dharekaris* rented only to tenants at will, while the *khots* also rented to customary tenants with security of tenure. These landlords, being in general the wealthiest cultivators in their villages, were the most likely to have regular surpluses after paying the tax on their holdings and

satisfying the immediate subsistence needs of their families. There is little information on systems and costs of grain storage,⁴ and the high humidity and rainfall in the Konkan is likely to have created particular problems for long term storage of grain. However, stored grain was important to the landlords since it was used to lend to tenants, particularly in the period before the harvest, and was also used to pay the wages of agricultural labourers and to support bonded labourers and slaves. The network of clients thus developed helped the *khots* to control their villages. During the eighteenth century these patron/client systems at village level, based on the grain surpluses of the landlords, were at the root of networks of patronage which spread right through the Maratha state, based on personal, family and caste alliances.⁵ Under the British, however, the links of patronage from central and district government to the village level were broken. Instead of personal contacts wealth, and in particular cash income, became the new basis of political influence. Though it was still possible for landlords to exert influence at the district level, now they had to buy the co-operation of leading officials in the Collector's office, who would have been brought in from outside the district and had fewer local links.⁶ Minor officials were still often from the locality, and here investment in an English education for a relative ensured that there would be a friendly contact in the district or *taluka* office. Finally, to defend their interests and control their clients at village level, the landlords had to use the British legal system, which was expensive.

This suggests that while under the *Peshwas* landlords were primarily interested in increasing the output from their holdings, since this would enable them to increase their standing and influence in their locality, during the nineteenth century landlords became increasingly influenced, when making decisions on investment in their holdings, by the prospects for increasing their cash incomes. As the local economy became increasingly monetised, even the wages of labourers would be partially paid in cash by the end of the century (see below Section III). However there were a number of serious disincentives to landlords in Ratnagiri who were considering increasing the profitability of their holdings in cash terms, as opposed to simply

raising their output. In particular, the costs of production, the trends in agricultural prices and the system of taxation operated to discourage such investment for most of the nineteenth century.

1 Costs of Production

Factors affecting the costs of production in the district included the cost of transport and labour costs. As has been discussed in Chapter 1, land transport in Ratnagiri faced particularly acute problems, since bridging the many creeks was expensive, and routes inland to the Deccan had to contend with the steep Ghat passes which were impassible in the monsoon. Road transport was poor for much of the nineteenth century - though it had improved by the 1920s - but the absence of a railway through the Konkan meant that water transport faced little competition until the bus network was developed after 1947. However, the district was well served with water transport, by the numerous small boats which plied up and down the coast and along the network of creeks and by the steamer service in the later nineteenth century, even though transport up some creeks was hindered as the century progressed by the silting up of the rivers, and shipping along the coast was also unable to operate in the monsoon.⁷ It therefore seems unlikely in view of the network of water transport that transport costs in Ratnagiri were significantly higher than those in neighbouring districts. In the early nineteenth century before the building of the railways in the Deccan they may well have been lower.

It does not appear that labour costs either would have been higher for landlords in Ratnagiri than in other districts of Western India. In Ratnagiri the *khots* and large *dharekari* holders appear to have preferred to rent out land to sharecropping tenants rather than to cultivate with hired labour. This is perhaps not surprising, since even in modern conditions many landowners find that the cost of paying and supervising hired labour is a deterrent to efficient cultivation, and that sharecropping both reduces the risk for the landlord and the cost of supervision.⁸ *Khots* and some *dharekaris* in Ratnagiri were also able to call on their lower caste sharecropping tenants for labour service, of two to four days' labour per household per month, though food was

sometimes given to the workers and the costs of effective supervision were probably high.⁹ But hired labour was used by many *khots*, and all but a few absentees also used slave or debt bonded labour, which cannot have been any cheaper since slaves and debt bonded labourers had to be supported for the entire year. Census statistics on occupation, which are rather unreliable, suggest that only between 3% and 6% of the population of the district were full time agricultural labourers between 1881 and 1921.¹⁰ Most would have been employed by the *khots* on their personal holdings, and by *Brahman* cultivators who were prevented by caste rules from taking a direct part in agricultural operations; and undoubtedly, hired labour would also have been used for any major schemes of land reclamation and improvement, such as building terraces. However, compared to other districts of Western India the percentage of hired labourers in the population was low in Ratnagiri.¹¹ Wages in Ratnagiri for agricultural labourers were also apparently slightly lower than in other neighbouring districts both in the mid nineteenth and the early twentieth centuries.¹²

Though labour and transport costs may have been similar to or slightly lower than those in neighbouring districts, the costs incurred in increasing output per acre in Ratnagiri were relatively high. Because level low lying land which could adapt easily to rice and garden cultivation was in short supply in Ratnagiri, hill land growing dry grains had to be converted into rice land or irrigated garden land in order to intensify cultivation and increase production. However, the costs involved in the conversion of most types of dry crop land into rice or garden land could be very high, and were a serious disincentive to those landlords who aimed to make a profit from the sale of the crops grown.

The easiest land to convert to rice or garden cultivation was the rich alluvial *rabi* land on the banks of creeks, which could easily be used for growing sugar cane and hemp without irrigation, and was easily converted to rice land by building embankments. However, this land was in limited supply, and much of it had already been converted to rice or garden land by the 1820s.¹³ Level and gently undulating hill land could be quite easily converted to grow rain-fed rice, though this involved the labour of clearing as well as embanking the land,

unless it had already been cleared for dry grain cultivation. Under the *Peshwas* this was considered the cheapest way of creating rice land, and did not therefore attract such favourable inducements as did the conversion of other types of land. In a selection of grants made by the *Peshwas* in the early nineteenth century for converting waste hill land into rice land, the estimated costs ranged from 41 rupees an acre to 212 rupees an acre.¹⁴ The reclamation of salt marsh land (*khajun* land) for sweet rice cultivation was another option for cultivators, but it was a difficult and expensive task; the cost of reclaiming one acre of salt marsh in 1806 was estimated at 425 rupees.¹⁵ Also expensive was the bringing into cultivation of rocky land on the steep hill sides, which required a substantial outlay of cash and labour to create terraced rice fields (*kuriat*) by making masonry embankments and bringing earth for the fields. The terraces could be used to grow rice in the monsoon, and if they were irrigated through a *pat* or system of channels, diverting a stream through the terraces, they could also grow *rabi* or dry season crops such as rice and vegetables, and could also grow perennial crops particularly sugar cane and hemp.¹⁶ In recognition of the expense of creating rice land from salt marsh and steep rocky hill land, from the mid eighteenth century the *Peshwas* gave extra tax concessions to landowners who made this investment.¹⁷ Most expensive of all was the building of systems of irrigation, whether they were *pats* for irrigating terraces, wells with 'Persian lifts' (*budkis*) for irrigating lower lying land, or tanks for storing monsoon water. Such systems of irrigation were needed to extend the cultivating season beyond the monsoon, and to create garden land which could grow perennial tree crops such as mangoes, coconuts and betelnuts. However, the Collector of Ratnagiri pointed out in 1845 that the smaller streams in the district were already dammed for irrigation, and the formation of masonry banks across the larger streams would involve such great expense that it was doubtful if it would yield any profit to a private investor. According to Captain Wingate, in the 1850s poor soil near Ratnagiri required an investment of 800 rupees to make a coconut garden, and at current prices it would be difficult to make any profit.¹⁸

In these circumstances, government aid could be a decisive factor in encouraging investment in irrigation and land improvement. In the late eighteenth century the *Peshwas* introduced a policy of encouraging investment in agriculture in Ratnagiri by offering very favourable tax agreements to landowners who created new rice or garden land. These *mafi istawa kowls* gave the landowner several tax free years on the new rice or garden land, and then a gradually increasing rate of tax, but even after the end of the agreement the rate of tax on the land was often lower than the normal rate, and where rice and garden were created out of salt marsh or rocky land a part of the tax on the holding was permanently remitted.¹⁹ These agreements were made available for landowners in Ratnagiri and the southern *talukas* of the district; landowners in the northern *talukas* could only be granted them for the conversion of salt marsh land.²⁰ The British Collectors had no doubt that this policy had encouraged investment in agriculture, such as the creation of terraced rice land on the hill-sides. However, the British government revised the terms of the agreements, shortening the period of tax exemption to nine years, and ending the system of granting tax concessions in perpetuity. The British authorities felt that the pressure of population in the district was not high enough to justify such concessions, and that they diverted capital from more profitable enterprises.²¹ As a result of these changes the applications for tax concessions, and presumably also the investment by landowners in improving the land, dropped;²² the rate at which *kowls* were given does not seem to have increased over the subsequent decade.²³

Kowls appear to have been the main ways in which landlords acquired capital for investment in improvements. Though many landlords were in debt to merchants (see below Section III), interest rates were high, and the slight evidence available suggests that loans were not entered into for agricultural improvements, but to pay tax demands, acquire land, or pay marriage expenses.²⁴ Direct investment by government in improving agriculture in the district also appears to have been negligible in the first half of the nineteenth century, and in 1849 the Bombay government deplored the lack of effort to improve the district through irrigation.²⁵ There does appear to have been some improvement

in the 1860s, when money for projects was made available from the District and Local Funds,²⁶ but by 1889 the proportion of the cropped area irrigated was still below the average for the Presidency.²⁷ However, in the following 25 years there appears to have been a substantial increase in irrigation since the percentage of the Gross Cropped Area irrigated had risen by 1914 to 6.5%, above the average for the Presidency as a whole, an improvement which may be in part attributed to the increase in loans to cultivators made available under the Land Improvements Loan Act of 1888.²⁸

ii Agricultural prices

In view of the substantial investment required to extend the acreage of land suitable for cash cropping, any landlords concerned with the return on their investment would have considered the level of agricultural prices before embarking on any substantial improvements to their land. However, prices of agricultural produce seem to have fallen on the introduction of British rule in Western India,²⁹ and though they rose in the mid 1820s during a period of severe crop failure, they soon dropped again, and remained relatively low until the mid 1850s (see Tables 6.1 and 6.2). Though the terms of trade for agriculture did not seem to have been much affected in this period, as the fall in prices was general,³⁰ the costs of production remained relatively high (as wages were paid in kind, and taxation did not fall), and so the profits of cash cropping were diminished. This fall in prices in Western India was probably caused in part by increased agricultural production and easier transportation made possible by the cessation of the wars which led to the British conquest of the *Maratha* Empire.³¹ It may also have been caused by falling demand within India (there was little export of agricultural produce overseas at this period). Demand for cotton, for instance, may have been hit by the decline of the Indian handicraft textile industry under British competition, and the demand for 'luxury' foods such as sugar, betelnuts and high quality rice must also have fallen considerably with the disbanding of the *Maratha* army and court, which led to soldiers and courtiers returning to their estates in reduced circumstances to produce for their own consumption.³² In Ratnagiri demand was reduced

further by the dismantling of the forts which had been supplied directly by local production.³³ This revenue grain was now offloaded onto the local market, since the British did not need rice in such large quantities to supply their troops, and so sold the revenue grain at auctions to local merchants, or persuaded the *khots* and *dharekaris* to pay cash instead.³⁴ British officers moreover did not, as did their *Naratha* counterparts, spend all their income in the district, but instead a proportion of it went overseas to Britain.

Another factor keeping prices down from the early 1840s, appears to have been increasing imports of lower priced grain from areas where the costs of production were lower e.g. rice from Malabar and Thana, and millet and pulses from the Deccan.³⁵ Ratnagiri probably exported rice in the eighteenth century,³⁶ and the first mention of imports of rice under British rule came in 1829.³⁷ The fact that prices of rice in the coastal markets of Ratnagiri *taluka* in the 1820s and 1830s were higher than in those inland, in neighbouring Sangameshwar *taluka*, suggests that rice was not being imported to any great extent at that period (See Table 6.2). However, in the 1840s and 1850s there are a number of reports from Collectors on the import of cheap rice, and the effect which this was having on prices in the district.³⁸ There are no accurate trade statistics available, but there does appear to be a slight trend towards levelling of price differentials between coastal and inland markets in the early 1840s (statistics on individual bazaars end in 1845; see Table 6.2). In contrast, between 1890/1 and 1906 prices of rice were consistently lower in Ratnagiri *taluka* (where markets were on the coast) than in Sangameshwar *taluka* (where markets were inland).³⁹ It must be pointed out, however, that the existence of imports from the 1840s does not necessarily imply a greatly enlarged market, since much of the grain imported was in transit through the district, by bullock load across from the Deccan or by small ship-load up the coast, bound for Bombay, and was simply offered for sale by the traders at their stopping places *en route*, in the hope of possibly finding a buyer.⁴⁰

From the 1850s, however, a rapid rise in agricultural prices took place in India as a whole, and also in Ratnagiri district. Though prices reached a peak in the mid 1860s, when they dropped they still

stabilised at a higher level than in the 1820s-50s. This price rise was largely occasioned by the general inflation in India caused by the massive influx of silver into India encouraged by the cotton boom, which led to the devaluation of the rupee in 1876.⁴¹ However, it does seem to have been accompanied by a movement in the terms of trade in favour of agriculture.⁴² This would not be unexpected, since demand for Indian agricultural products, particularly cotton, was rising in the second half of the nineteenth century, and the switch to non-food crops in some areas, combined with the rising population in the mid nineteenth century, also increased the demand for food crops over the period; while at the same time competition within the manufacturing sector, combined with lower transport costs, is likely to have held back price rises for manufactured goods. Any movement in the terms of trade in favour of agriculture was likely, of course, to encourage cash cropping. Rising agricultural prices also helped to reduce the costs of production for landowners, by reducing the real revenue demand (even before the Settlement when a fixed cash assessment was introduced, part of the revenue payable in kind was commuted compulsorily at fixed rates), and by reducing the costs of hiring labour when this was paid in cash, since there is some evidence that wages lagged behind rises in agricultural prices in Ratnagiri.⁴³

Though by the end of the nineteenth century the profits to be made from cash cropping may have risen in Ratnagiri, nonetheless the district lacked still a profitable major export crop.⁴⁴ Cotton, the most important cash crop of Western India in the nineteenth century, could not be grown in Ratnagiri;⁴⁵ land suitable for the cultivation of sugar and hemp, both products in demand in India and overseas, was very limited, though their cultivation did increase significantly over the century;⁴⁶ and cash cropping for export was otherwise concentrated on orchard and garden produce, particularly betelnuts and leaves, cashewnuts, mangoes and coconuts, which, being primarily destined for consumption in India, and in particular in Bombay, did not fetch the high prices of the major export crops, in spite of the substantial investment required in their cultivation.⁴⁷

iii Taxation

In these circumstances, it is not surprising that large landowners were reluctant to invest in increasing agricultural production. However, even if they had been willing to do so, the evidence suggests that many landlords did not have large surpluses to invest in the nineteenth century. Estimates of landlords' incomes are clearly not easy to make and only very fragmentary evidence exists.⁴⁹ There is some evidence, however, which suggests that in the mid nineteenth century a number of *khots* were in serious financial difficulties, and unable to pay the revenue demand on their villages. An indication of this is the extent to which *dharekari* villages and *khotiships* were handed over to government management because their owners were unable or unwilling to sign the annual *kabulayat* agreement with the government to pay the year's revenue demand on their holding.⁵⁰ Statistics on the numbers of government managed villages do indicate increasing difficulties in paying the revenue in the mid nineteenth century, particularly among *dharekaris*,⁵¹ and in Ratnagiri, Rajapur and Devgad *talukas*, where the revenue demand was highest in that period.⁵² Out of 1,338 villages (excluding *inam* villages) only 27 were under government management in 1828, but 56 in 1835/6, and 70 in 1840, 114 by 1853/4 and 143 by 1879.⁵³ Another indication of financial difficulties among landholders, is the extent of mortgaging of holdings and villages. Mortgaging of property appears to have been quite common in the eighteenth century, and by the late 1820s for example, nearly half of the *khotiships* in Ratnagiri and Sangameshwar *talukas* appear to have been mortgaged at least in part.⁵⁴ Most mortgages were usufructory or 'possessory', which meant that the mortgagee took the place of the mortgagors as manager of the property while the mortgagor cultivated the land as a tenant.⁵⁵ This suggests that in the early nineteenth century, these *khotiships* were profitable, and that the mortgages must indicate only temporary difficulties in paying the revenue. By the 1850s, however, the impression given by British officials is that *khots* and *dharekaris* were facing increasing financial problems,⁵⁶ and this impression is supported by the evidence of a change in the type of mortgage used. From the mid nineteenth century, the main form of mortgage became increasingly a mortgage

which was nominally usufructory, but in which the mortgagee returned the management of the khotiship to the mortgagor in return for an agreed annual payment.⁵⁶ It seems likely that the predominance of this type of mortgage by the end of the nineteenth century indicates that khotiships were not profitable enough for the mortgagee to take the trouble to manage it himself.

The incidence of taxation clearly played a part in the financial difficulties of landholders in the nineteenth century. Initially, the British adopted the revenue system and rates of the *Peshwas*, which reflected the severe financial crisis of the late *Maratha* empire and were correspondingly high. As agricultural prices fell in the late 1820s, moreover, the real rate of taxation increased, since the land tax, though assessed and partly payable in kind, was also partly compulsorily commuted to cash at fixed rates based on prices under the late *Peshwas*.⁵⁷ Though the adoption of the *Peshwas'* revenue rates also caused problems in the Deccan, in the 1840s they were discarded in favour of the Survey Settlement, which generally reduced the rates of taxation; Ratnagiri had to wait until the 1870s and 1880s for the implementation of a similar Settlement. In the mid nineteenth century, however, with increases in cultivation, and higher agricultural prices, the real rate of taxation began to fall, and the Survey Settlement, although less generous than the Original Settlement in the Deccan, led to reductions in the overall payments of the southern *talukas* of Ratnagiri, Sangameshwar, and Rajapur.⁵⁸ It seems probable, that in the first half of the nineteenth century the rates of taxation did inhibit investment in agriculture. Moreover, under the *Peshwa's* system, certain commercially profitable crops paid especially high rates of tax, for example sugar and hemp, and also the system used to tax garden land made no allowance for the long periods when the land would be unproductive when new trees were planted.⁵⁹ However, in the later decades of the century, these problems were reduced to some extent, though in a comparative perspective, rates of taxation on land in India as a whole were very high compared to that in most European countries at the same period.⁶⁰

To sum up, the larger landowners in Ratnagiri were deterred from investing in agriculture to increase output, because the relatively

high costs of production in Ratnagiri compared to neighbouring rice producing areas made it difficult for them to compete,⁶¹ and the high rates of taxation and low agricultural prices in the first half of the nineteenth century also discouraged investment. Estimates of the output of different types of land and the costs of cultivation made by British officials in Ratnagiri in the 1840s appear to show that, given the low agricultural prices at the time, and rates of taxation by government of, in general, between 30% and 60%, if cultivators had to hire all their labour they would make no profit at all on their cultivation.⁶²

III The Merchants

The role of the merchants is also crucial in determining the extent of output raising investment in Ratnagiri. Merchants in Ratnagiri were not, in the main, involved directly in cultivation through ownership of land or khotiships. In Ratnagiri and Sangameshwar talukas in 1829, very few *khots* were from merchant castes, nor did many *khots* of other castes engage in trade.⁶³ Mortgagees of khotiships, also, were mainly *Brahmans*, often apparently *khots* or *dharekaris* in other villages in the talukas⁶⁴ However, developments in the Deccan in the late nineteenth century show clearly that merchants did not necessarily need to own land in order to be involved in the process of cultivation. By lending seed or money to the cultivator at the start of the cultivating season, in return for a contract to buy the harvest on favourable terms to himself, the merchant was intervening in the process of cultivation, and ensuring that the peasant continued to cultivate the cash crops which the merchant required.⁶⁵

In Ratnagiri district, however, this type of merchant involvement with the cultivator appears to have been rare. In the Settlement reports, where details are usually supplied of the markets available to cultivators in each taluka, in only one case is there even mention of merchants travelling round the villages to buy grain direct from the cultivators, and this was in the area round Chiplun in the 1860s, when it attracted a large number of merchants from Bombay, as a centre for

the cotton trade from the Deccan during the cotton boom.⁶⁶ This limited merchant involvement with cultivators in Ratnagiri can partly be explained by the very undeveloped internal market in the district for much of the nineteenth century. Cash transactions were few, because most cultivators were tenants who paid rent in kind to their landlords. Wage labourers were paid partly in kind, and much of the tax to government was paid in kind in the early nineteenth century, while small loans to the poorer peasants by the landlords were paid and repaid in grain as well.⁶⁷ Though periodic markets existed, they were unevenly distributed, being located mainly on the central plateau and in the river valleys on the routes between the coast and the Ghats, where regional staples could be exchanged - rice, fish and coconuts from the coast for dry grains and timber from inland.⁶⁸ Within the coastal and the hill regions of the district, however, there does not seem to have been enough specialisation to make such markets worthwhile. For example, even in 1871 Guhagar *taluka*, consisting of 106 villages in the coastal area, had no periodic market, and even Guhagar, the *taluka* town (with 4,000 people), had only two or three shops.⁶⁹ As a result, many peasants were unable to use periodic markets, and would hawk any surpluses they had round neighbouring villages.⁷⁰ Periodic markets in any case appear to have used barter rather than cash in the early nineteenth century.⁷¹ Cash transactions, and any larger transactions involving importing or exporting goods, were conducted in the fixed markets or *peths*, established by government grant, usually with tax concessions, in the larger population or communications centres.⁷² Even here, though, the market appears to have been very limited. Prices fluctuated considerably in each *peth* from week to week depending on the availability of a particular item in that particular market, and prices for the same item also varied very considerably from one market to the next, even within the same *taluka*.⁷³ There was little competition between merchants in each *Peth* because prices, weights and measures were regulated by the *shetye*, who took a percentage of the profits of merchants and craftsmen in the *peth*.⁷⁴ This undeveloped market was probably linked to the low degree of urbanisation in the district. In 1872, Ratnagiri had only six towns with a population of over 5,000,

(for a population of 1,019,136), while the neighbouring Konkan district of Thana had eight such towns for a population of 847,424, and Kolaba had four for a population of 350,405.⁷⁵

An undeveloped local market, however, is not in itself a barrier to merchant involvement in the process of cultivation. It is clear from the example of Khandesh, a poor, underpopulated district in the mid nineteenth century, which became one of the major cotton exporting areas of Western India later in the century, that merchants frequently by-passed local markets to deal direct with the cultivators in purchasing major export crops.⁷⁶ There were other factors which can explain the lack of merchant activity in Ratnagiri. Firstly, there was the absence of a major export crop in Ratnagiri which could have attracted the attention of merchants from outside the district. In the Deccan, during the cotton boom, many merchant families from Gujerat moved into the area, and links were established with the important trading firms in Bombay.⁷⁷ In Ratnagiri, however, throughout the century, the majority of merchants appear to have been local, particularly *Sangameshwar Vanis*.⁷⁸ Outsiders tended only to visit the district for short periods in the dry season, congregating in towns such as Chiplun, which were centres for the through trade from the Deccan and up the coast. Their local involvement was slight.⁷⁹ There were some cash crops in Ratnagiri which were increasingly finding a market in Bombay during the century. White betelnuts were already being cultivated in Khed *taluka* in 1832 exclusively for the Bombay market; mangoes were being exported from Vaghotan in Rajapur *taluka* by 1850, and were also an important export from Mandangad *taluka*, and from Ratnagiri *taluka* in the twentieth century, and the export of roasted cashew nuts was an important activity in Malvan in the early twentieth century).⁸⁰ All of these must have attracted merchant capital, but nonetheless most of the crops with a major overseas market in the nineteenth century, where the greatest profits were to be made, were not easily grown in Ratnagiri.

Secondly, it seems probable that merchant involvement with the ordinary cultivators in Ratnagiri was reduced because they were largely excluded from such transactions by the *khots*. In the first half of the nineteenth century at least, it was the *khots* and the

wealthier *dharekari* landowners who provided loans to the cultivators when they needed them.⁸¹ Most loans appear to have been in grain, to enable the tenant to subsist until the next harvest and to provide seed for sowing, and were repaid with interest after the harvest.⁸² Some *khots* also gave longer term cash loans to cultivators, usually to cover the expenses of marriage ceremonies, and these were repaid by a period of debt bonded labour.⁸³ Loans from the *khots*, in other words, were aimed at merely ensuring the survival of their tenants and the continuance of cultivation; there is no evidence that they were in any way concerned with increasing investment in the tenants' holdings.⁸⁴ Because of the dependence of the tenant on the *khot*, he was obliged to turn to the *khot* for assistance, and the merchant was therefore largely excluded from dealing with the majority of cultivators. There is some evidence that merchants were involved in lending to *khots* and the wealthier *dharekaris* who were in temporary financial difficulties,⁸⁵ but even here many of the *khots* and *dharekaris*, being *Brahman*, preferred to borrow from fellow *Brahmans*, mainly neighbouring *khots*, who had surplus capital available for money-lending activities.⁸⁶

Though for much of the century, in Ratnagiri as in the Deccan, the great majority of both tenants and landowners were in debt, this indebtendess was not to the merchants, as in the Deccan, but to fellow landowners, who had expanded into money-lending and sometimes trading activities as a side-line. Thus, merchant capital was not brought into the district to be invested in agriculture, but instead wealthy landowners, who could have invested their surplus increasing their own production, found it more profitable to divert this to money-lending often with a view to gaining control of *khotiships*. The different interests of these two groups clearly had an important influence on their behaviour in relation to commercial agriculture. For the merchant, whose main income came from the profits of trading goods, it was worthwhile to invest in agriculture through cash loans to peasants if this would ensure a supply of cash crops at a low price, where otherwise the peasant might have reverted to subsistence cropping of grains which required less investment of time or cash on his part. For the landlord, however, whose main income came from the

land, investment in extending or maintaining commercial agriculture was only worthwhile if clear profits could be made when the crops were sold in the market. In many cases it was more profitable to use their resources to make small grain loans to cultivators in order to ensure that enough grain was produced to pay the revenue and provide for subsistence, while at the same time maintaining a cheap and readily available labour force and maintaining their status within the village.

IV Subsistence cultivators

If neither the landlord nor the merchant found it profitable to invest in increasing agricultural production in Ratnagiri district it was the subsistence cultivator, who was not bound by considerations of profit and who was able to use family labour to invest in his holding, who was most likely to engage in output raising investment. The data from the Farm Management Studies in the 1950s, which showed an inverse relationship between yield per acre and size of holding, tend to support this conclusion.⁹⁷ Detailed analysis of this data by economists has shown that the small farms are more productive because they have higher labour inputs, manifested particularly in their more intensive cropping patterns, using high value cash crops and labour intensive irrigation, and it is generally agreed that small farms are able to use higher labour inputs per acre than large farms because they use low cost family labour, willing to work at less than the normal wage rate, while large farms are compelled to use a high proportion of hired labour.⁹⁸

However, analysis based on farm size alone ignores the particular problems of tenant farmers such as those in Ratnagiri district. Most economists have agreed that sharecropping and insecure tenancies have a disincentive effect on investment in agriculture, since tenants are unable to profit fully from the raised output resulting from their investment.⁹⁹ In contrast, Cheung has argued that sharecropping is advantageous to both tenant and landlord in that it reduces risk and transaction costs for the landlord in comparison with employing wage labour while at the same time it is less risky for the tenant than

fixed wage contracts; moreover, it can be as or more productive than other forms of rental contract, because of the landlord's ability to force tenants to increase inputs.⁹⁰ However, this view appears to have little support from empirical studies, at least in India, which suggest that sharecropped holdings are less productive than owned ones.⁹¹ In discussing the case of Ratnagiri the investment behaviour of tenants is important because the majority of subsistence cultivators in the district were sharecroppers in the nineteenth century, and as has been shown in Chapter 4 even in the mid twentieth century nearly half the cultivators in *khoti* villages were sharecroppers. Cultivators in the nineteenth century were certainly aware of the advantages of fixed rents over sharecropping. As they explained to Captain Dowell in Borsut village in *tarf* Sangameshwar in the 1820s, taking the land on a fixed rent meant they could manure it and make other improvements without paying extra rent.⁹² However, tenants in the early nineteenth century were usually deterred by the high fixed rents charged by the *khot*.⁹³ Also, fixed rent contracts before the survey settlement (when 30 year contracts were introduced) were invariably of only a few years' duration, which meant that the tenant did not get the full benefit of any long term investment.⁹⁴ In the case of Borsut, fixed rent agreements were for two to five years in rice land, and two to three years in hill land, and would be renewed at the same rate if the land remained the same, but would be increased if the tenant had enlarged a terrace.⁹⁵ Cost share leases, which have been used effectively in some cases to encourage tenants to use the expensive inputs necessary to grow the new high yielding varieties during the Green Revolution, do not appear to have been used in early nineteenth century Ratnagiri except on rare occasions.⁹⁶ In addition to the disincentive effect of sharecropping, tenants in Ratnagiri were also discouraged from long term investment in their holdings, such as would have been needed to turn hill land into rice land, by their insecurity of tenure. As has been argued in Chapter 4, even those tenants with customary security of tenure became vulnerable during the early decades of British rule, and though the Khoti Act and the Survey Settlement after 1880 did give a higher proportion of tenants security of tenure, nearly 50% of *khoti* tenants were still tenants at will in

the mid twentieth century. In addition to this, the extreme poverty of the lower caste *kholi* tenants acted as a disincentive to agricultural improvements. Many of them lacked the ploughs and bullocks necessary for the more intensive farming, and often probably the man-power within the family to achieve even simple improvements such as bunding of fields, and were unable to afford to hire labour.⁹⁷ Those many poor tenants who were unable to subsist until the harvest without grain loans from the *khot* for consumption and seed, were not able to practice seed selection and experiment for themselves to find the most suitable varieties; they were also compelled by their subsistence needs to grow the low yielding red rices, because they matured earlier in the season.⁹⁸

Given the difficulties facing tenants in investing in long term improvements to their holdings, it seems that those most likely to invest in increasing agricultural production were the subsistence landowning peasants, i.e. holders of *dharas* taxed at up to approx. 30 rupees.⁹⁹ After the Khoti Settlement Act and the 1904 Amendment, (see Chapter 4) those of the *khots'* tenants who had security of tenure under the Act and 30 year fixed cash leases would also fall into this category, but unfortunately there is no data on extension of rice land after 1880 which could substantiate this.¹⁰⁰ Throughout the nineteenth century, however, subsistence peasant landholders in *dharekari* villages had considerable incentives to make long term improvements to their holdings, since they paid a fixed tax to government which was only altered once in the nineteenth century, at the Original Settlement; at the same time their subsistence needs, and the use they were able to make of family as opposed to hired labour, made investment for them worthwhile in circumstances which deterred the wealthier farmer.

V Landholding and Investment: the Evidence

It is not possible to obtain direct data for Ratnagiri on investment in agriculture or other aspects of farm performance related to tenorial status or size of holding, for the nineteenth and early twentieth centuries. It is necessary therefore to rely on indirect indicators of various types. There are some data on numbers of

ploughs, cattle, carts, tanks and wells by *taluka*, which shows that in the mid nineteenth century, investment per head of the population was highest in Malvan, where most villages were *dharekari*.¹⁰¹ It is similarly possible to examine the data on areas under different crops which is available for each *taluka* for 1914/15, since the creation of both rice and garden land required a degree of initial investment and a subsequent application of labour which was not required for hill cultivation (see Table 6.3). However this must be analysed with great caution. It has already been argued (see Chapter 4) that many *khoti* villages developed in the eighteenth century in response to the problems of collecting revenue in areas of fluctuating hill cultivation, and so the higher proportion of rice and garden crops to hill crops in areas with many *dharekari* villages is more likely to reflect the geographical constraints of cultivation in hill areas than a reluctance to invest.

In Table 6.4, therefore, I look at *khoti* and *dharekari* villages in Ratnagiri *taluka*, on the coast north of Ratnagiri town. The *khoti* and *dharekari* villages in *tarf* Sytowde are all very similar in location and type of land, which makes it possible to compare the relative development of the *khoti* and *dharekari* villages effectively. The *dharekari* villages in *tarf* Kuriat Nevre have more rice land but very poor hill land. As can be seen from Table 6.4, *khoti* villages were on average smaller than *dharekari*, especially in population and rice land. *Khoti* villages at the beginning of the period had more hill land per head than *dharekari* villages and a similar amount of rice land. However by 1870 the situation had changed, and investment in rice cultivation in *khoti* villages had not kept pace with population growth to the extent which it had in *dharekari* villages. As a result, the acreage of rice land per head in *khoti* villages had dropped below that for the *dharekari* villages. Though *khoti* villages still had more hill land per head than *dharekari* villages, this had also dropped so sharply that the average holding was well below subsistence level.¹⁰²

It is possible, however, to construe the evidence of Table 6.4 as showing simply that higher investment in extending rice cultivation was only undertaken when the population pressure reached a certain level, regardless of the tenure, or of the distribution of landholding.

The evidence of Table 6.5 suggests however, that this is not a sufficient explanation. This table does show firstly that the smallest holdings, of under one acre, have the highest proportion of rice and garden to hill cultivation in both *khoti* and *dharekari* villages. These holdings were not adequate to provide even a minimum standard of subsistence, and their cultivators must either have rented in other land as well, as tenants at will, or have had some other source of income, such as labouring or trade. Secondly, this table shows that in holdings of 1-9 acres, rice and garden cultivation were still higher in comparison to hill cultivation than in the larger holdings, though there was a steady trend downwards. Many of the 1-4 acre holdings would also not have been sufficient for subsistence, unless they were all rice land, but many of the 5-9 acre holdings would have provided subsistence for a family, though with little or no surplus. Most of these cultivators would have used just family labour on their holdings, as would cultivators of holdings under one acre, unless they were high caste or by some accident were lacking adult males in the family. Thirdly, the table shows that in the case of holdings of 10-19 acres and above, the proportion of rice and garden land to hill land is much lower than in the smallest holdings, but above 10 acres there is no very clear trend in the relationship between the different types of cultivation. Holdings of 10-19 acres would provide a comfortable subsistence in most cases, with little regular surplus, but in some cases, where there was a high proportion of rice land in the holdings, their owners could be wealthy peasants, with a regular surplus every year over subsistence needs. Most holders of this size would have needed to employ labour for cultivation, since it has been estimated that a peasant cultivating over 2½ acres of rice land or 4 acres of hill land (i.e. a holding of about 16 acres of hill land in most areas of Ratnagiri), would need to employ some labour.¹⁰³ Any holdings over 20 acres were likely to yield a regular surplus above subsistence needs and would certainly need to employ labour, unless the holdings were to be rented out. This evidence on the inverse relationship between investment in rice and garden cultivation and size of holdings can be compared with the data from the Farm Management Surveys in the 1950s, which show a similar inverse relationship between the

intensity of cropping patterns and the size of holding. It has been suggested by Bhagwati and Chakravarty¹⁰⁴ that this might be explained in terms of the superior quality of land in the smaller holdings, as a result of farmers in financial difficulties selling the poorer quality land first and holding onto their small plots of rice. However, there is little evidence to suggest such an active market in land in Ratnagiri in the nineteenth century. It is possible, using a part of the settlement records of *dharekari* villages known as the 'Appendix D', to trace changes in *dharekari* holdings in some *dharekari* villages in Ratnagiri taluka between 1867 and 1881/5. Very few of the transfers of land recorded in this way, however, can be attributed to land sales. In Nevre, for instance, a large *dharekari* village with 295 *dharekari* holdings, near the town of Ratnagiri, there were 112 cases of transfer of land through inheritance in this period, and only one clear case of transfer of land through sale, though there were 11 cases which might possibly have been sales since the transfer was not made to a relative (the transfer is assumed to have been by inheritance if it was made to a person with the same surname).¹⁰⁵

It is also possible that the high proportion of rice in the smallest holdings, seen in Table 6.4, could be connected with the fragmentation of holdings associated with the subdivision of land between several heirs. However, this again seems unlikely to provide an explanation. Where subdivision of a holding between heirs did occur, each claimant appears to have been given an equal share of each type of land, so that their new holdings, though smaller, would reflect the balance of the old. The Appendix D for Nevre again provides evidence of this in the 18 cases recorded of subdivision of holdings through inheritance. In 9 of these cases the desire to provide really equal shares was so great that each *pot* number (a small division of a survey number, which in the Konkan was in effect a separate field, since every parcel of land of a different class held by a different occupant in a survey number in the Konkan was made into a separate *pot* number), was divided into shares between the heirs.

The data from Table 6.5 does therefore apparently confirm the hypothesis that it was the small subsistence cultivators, employing family labour, and under pressure of subsistence as population rose in

the nineteenth century, who were most likely to invest in intensifying cultivation by the creation of new rice land out of the hill land in their holdings. The data also show, moreover, that subsistence cultivators in *dharekari* villages were investing more heavily in rice and garden cultivation than subsistence tenants in *khoti* villages. As can be seen in Table 6.5, though there was little difference in the proportion of rice and garden land to hill land in holdings of 10-19 acres and over between *khoti* and *dharekari* villages, there was a very considerable difference in the rate of investment in rice and garden land between *khoti* and *dharekari* cultivators of holdings under 5 acres. A similar phenomenon has been observed by Sen in the data from the Farm Management Surveys in the 1950s, which appear to show that the disincentive effect of tenancy on investment applies only to the smaller holdings, while in the larger holdings there is little difference in performance between tenants and owners.¹⁰⁶

VI Conclusion

Though the data on land tenure and investment in agriculture is of a very fragmentary and unsatisfactory nature, it does appear to confirm the hypothesis that it was only the landowning subsistence peasant in the *dharekari* villages using family rather than hired labour on his farm who was prepared to invest heavily in converting hill land to rice and garden land during the nineteenth century. It has been argued that subsistence sharecropping tenants in the *khoti* villages were deterred from any long term investment in their holdings by their insecurity of tenure and by the disincentive effect of sharecropping. The larger landowners in the *dharekari* villages, and the *khots* themselves, on the other hand, were deterred from output raising investment because of the relatively high costs of employing and supervising labour, and because the costs of production in general were high in Ratnagiri in comparison with other districts of Western India. For this reason, and because Ratnagiri lacked a highly profitable export crop, such as cotton, investment in intensifying cultivation for commercial production was not viable, and the larger landowners had no need to intensify cultivation purely to increase

production of subsistence grains. In these circumstances, it is possible that merchant capital might have stepped in, as happened in some areas of Western India in the nineteenth century, to stimulate the production of cash crops with a high value per acre by making loans to peasants. However, the undeveloped nature of the internal market, the absence of a suitably attractive cash crop at this period, and the *khoti* system itself, combined to keep the merchants' involvement in the district low compared to that in many other areas of Western India in the nineteenth century. As a result of this combination of circumstances, though subsistence cultivation of both rice and hill grains increased during the nineteenth century, it failed to keep pace with the rapid rise in population; at the same time, cultivation of high value per acre crops such as sugar, cotton, garden crops and hemp accounted for less than 20% of cultivation even by the 1920s¹⁰⁷.

As population rose, and output per head fell, it is clear that it was the low caste tenant cultivators in the *khoti* villages who suffered most. For, when the relative investment patterns of subsistence cultivators in *khoti* and *dharekari* villages are compared, it must be born in mind that while the subsistence cultivators in the *khoti* villages were mainly lower caste, there was a significantly higher proportion from the higher castes among the subsistence landowners in the *dharekari* villages (see Table 6.6A and B). Table 6.7 shows in detail how the relative position of different families in the village of Pirdavne, in *taluka* Sangameshwar, changed in the course of a century, showing that while the higher castes expanded their rice cultivation considerably over the course of the century, the holdings of the lowest castes- the *Mahar*, *Gurav*, *Chambhar*, *Teli* and *Sabekar* (*Kunbi*) families - decreased from 11.6 % to 5% of rice cultivation, and from 2.8% to 1.9 % of hill cultivation. Thus, while it has been shown in Chapter 4 that the burden of tax and rent in the district in the nineteenth century fell most heavily on the lower caste *khoti* tenants, it can also be seen that it was the lower castes who suffered most from the failure of agricultural production to keep pace with population over the century.

NOTES

- 1) E. Boserup, *Conditions of Agricultural Growth: the economics of agrarian change under population pressure* (London, 1965) and *Population and Technological Change* (Chicago, 1981).
- 2) R. Brenner, 'Agrarian Class Structure and Economic Development in Pre-Industrial Europe', *Past and Present* 70, 1978; and 'The Agrarian Roots of European Capitalism', *Past and Present* 97, 1982.
- 3) T. H. Ashton and C. H. E. Philpin eds., *The Brenner Debate* (Cambridge, 1985).
- 4) There are few references to grain storage in the sources which I have been able to use. There is one reference in *Dowell's Notes* (p. 99) to a mortgagor storing grain in his house for two years. Theorising on the extent of grain storage on the basis of other economic indicators such as interest rates holds many dangers. For a critique of the current debate on the extent and nature of grain storage in medieval England, see J. Komlos and R. Landes, 'Anachronistic economics: grain storage in medieval England' *Economic History Review* XLIV, 1, 1991.
- 5) See F. Perlman, 'Interior' and 'Exterior' in rural formations. Difference as relation in the countryside of the late medieval Deccan', (Unpublished paper, University of London 4.3.1977) on the interlocking relationships from village to court level in the Maratha state in the eighteenth century. For an example from Ratnagiri district, see *Dowell's Notes* p. 95: the *khot* of the village of Tivre was the son of the *mamlatdar* of the *Pant Pritinidhi*, who was himself one of the most important hereditary officers under the *Peshwas*.
- 6) For example, an investigation by the Revenue Commissioner into frauds by government officials in Rajpuri *taluka* in Kolaba in 1838 revealed a network of corruption, involving particularly a *khot* and moneylender, E. R. Wagle, who had given bribes to government officials to get a court case called off, and to get tax remissions on his villages: BRP 1838 Range 372 Vol. 37 no. 4794 dated 11.6.1838 paras. 1-22 and 38-41.
- 7) *Gazetteer* (1880) pp. 169-172. Though the advent of steamship services along the coast did lower the costs of water transport in the second half of the nineteenth century, and the steamships also had the advantage of being able to operate a limited service in the monsoon.
- 8) As is argued, for example, by S. Cheung, *The Theory of Share Tenancy* (Chicago, 1969), and J. E. Stiglitz, 'Incentives, risk sharing and sharecropping', *Review of Economic Studies* April, 1974.
- 9) In 97 *khoti* villages in Ratnagiri and Sangameshwar *talukas* for which details are available in *Dowell's Notes* there were 493 households of *chakars* (slaves) and 177 households of *shetkaris* (debt

bonded labourers), mainly belonging to the *khots*. Only 8 of these villages had no *chakars* or *shetkaris* at all, and it is clear that they were used by the *khots* to cultivate their personal holdings, (e.g. *Dowell's Notes* p. 69). *Chakars* and *shetkaris* were also to be found in *dharekari* villages, where they were probably used by *Brahman* cultivators who were discouraged by caste restrictions from taking a direct part in agricultural operations: in *Dowell's Notes* there were 424 households of *chakars* and 177 households of *shetkaris* in the 47 *dharekari* villages in Ratnagiri and Sangameshwar *talukas* on which details are available, and 10 of the villages had none. The presence of agricultural labourers is not regularly documented in *Dowell's Notes*, but mention is made of 200 in one *khoti* village in *taluka* Sangameshwar, *Kasba Devle*, employed by *khots* and *Brahmans*, probably: *Dowell's Notes* p. 49.

10) According to the 1901 Census (*Census of India 1901 Vol. IXA Part II*) there were 11,776 male and 19,260 female field labourers in Ratnagiri, with 18,844 dependents, presumably mainly young children and the elderly. There were also 673 male and 698 females classed as partly field labourers, partly agriculturalists, and 697 male and 45 female farm servants (debt bonded servants probably) with 254 dependents. Full time farm labourers (excluding dependents) comprised 2.7% of the population of the district in 1901 and 3.3% in 1921. However in 1881 and 1911 full-time agricultural labourers (excluding dependents) were 5.8% and 6.0% of the population, which suggests that there was some inconsistency over definitions.

11) In 1901 for example, agricultural labourers (including farm servants) accounted for 2.7% of the population of Ratnagiri district, 2.8% of the population of Satara district, 3.4% of the population of Kolaba district and 3.5% of the population of Poona district: *Census of India 1901 Vol IXA Bombay Part II Table I and Table XV Pt.II*.

12) *Wage Census of the Bombay Presidency* (Bombay, 1919) pp. 4-6: agricultural labourers in Ratnagiri district earned 2-4 annas per day, while in Satara district they earned 3-5 annas. In 1862 wages for labourers in the Konkan were lower than in the Deccan, Gujerat or Southern Maratha Country: C. B. Hart, B. H. Ellis and J. B. Dunsterville, *Memo by the Commission appointed to Collect Information on the subject of Prices as affecting all classes of government servants* (Bombay 1864/5) pp. 112-13.

13) *Selections M.S. no. 96* (Bombay, 1866) letter dated 18.1.1855 on *taluka* Musrapur, in Thana, p. 18, on *rabi* land. See also *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. 1 Appendix Glossary. For the amount of *rabi* land in Ratnagiri and Sangameshwar *talukas* see Table 5.1.

14) BRP 1838 Range 372 Vol. 47 no. 9551 dated 5.5.1837 para. 3; also MSA RD 1857 Vol. 165 letter no. 2845 of 1856 dated 13.9.1856, Appendix I p. 178. Costs calculated from data on pp. 177-182.

15) MSA RD 1857 Vol. 165 letter no. 2845 of 1856 dated 13.9.1856 Appendix I p. 178. See also BRP 1835 Range 371 Vol. 47 no. 1325 dated

10.3.1835, the Collector of Ratnagiri recommends giving revenue remissions to encourage the creation of *khari* lands (recovered from the sea) as the outlay is considerable and labour has to be hired from a distance. See also BRP 1841 Range 373 Vol. 44 no. 6048 dated 1.11.1840 para. 28, on maintaining the sea embankments. The cost of repairs to sea embankments after a storm in 1809 was estimated at 198 rupees per acre (calculated from MSA RD 1857 Vol. 165 letter no. 2845 of 1856 dated 13.9.1856 Appendix I p. 180).

16) Wingate's Diary Vol. 3 p. 55 28th April 1855.

17) BRP 1838 Range 372 Vol. 47 no. 9551 dated 5.5.1837 para. 3. *Nafi istawa kowls* gave fixed periods of *nafi* (tax free), and *istawa* (gradually increasing tax) for the expenses of bringing *khudkul* (rocky), *khajun* (salt marsh) and *junglegurk* (waste land) into cultivation, and gave a tax free allowance in perpetuity (*inam*) of half the regular tax on converted *khudkul* land, and one quarter in *khajun* land, but none for *junglegurk*.

18) BRP 1846 Range 375 Vol. 22 no. 3283 dated 30.4.1845 para. 28; Wingate's Diary Vol. 3 p. 57 1852. The cost of making an acre of garden land in 1815 was 2,642 rupees (calculated from MSA RD 1857 Vol. 165 letter no. 2845 of 1856 Appendix I pp. 181-2).

19) BRP 1838 Range 372 Vol. 47 no. 9551 dated 5.5.1837 paras. 3-7.

20) BRP 1828 Range 370 Vol. 1 no. 10 dated 26.8.1828 paras. 158-9.

21) BRP 1828 Range 370 Vol. 1 no. 10 dated 26.8.1828 paras. 156-163.

22) BRP 1828 Range 369 Vol. 67 no. 51 dated 26.8.1828 paras. 156-7. There were 12 *kowls* for approx. 120 acres given in 1827.

23) *Kowls* were given in 1843: BRP 1843 Range 374 Vol. 20 no. 4796 enclosed with no. 4785 dated 20.3.1843. Statement of individuals to whom *kowls* were given in Ratnagiri Collectorate in 1841/2. There were 17 *kowls* given (31 individuals involved), for approx. 41 acres in total.

24) In Kolaba (bordering on Ratnagiri district to the north) in 1854, the rates of interest charged by moneylenders varied from a moderate 7-15% p.a. for 'respectable persons possessing property' to 18-37% p.a. for 'respectable persons of the middle classes possessing small estates', and 40-140% p.a. for 'cultivators and others whose ability to pay off the loan is doubtful'. *Selections M.S.* no. 7 (Bombay, 1854) p. 100. There is not much evidence, however, on the use which the wealthy and middle ranking landowners made of their loans. There is ample evidence that *khotiships* were being mortgaged in Ratnagiri district during the nineteenth century, (see Chapter 6 Section II iii), but, again, not much indication as to why the borrowers took out the loans. Problems with paying revenue demands is the only specific cause of *khoti* indebtedness mentioned by British officials in Ratnagiri district: e.g. MSA RD 1874 Vol. 102/1856 Col. Francis' notes on the settlement of Khed *mahal* (undated) p. 701,

25) BRP 1849 Range 376 Vol. 39 no. 5685 dated 26.4.1849 para. 28.

26) For example, from 1865-1878/9 the District and Local Funds Committee built or improved 107 wells, 36 ponds and 51 water courses. All these projects were clearly small scale, though: *Gazetteer* (1880) pp. 280-1.

27) *Director of Agriculture's Report* for 1889/90 (Bombay, 1890) pp. xiv-xv. The average percentage of net area irrigated on net area cropped in the Presidency was 3%, while in Ratnagiri it was 1%. See also *The Times of India* 30.6.1868 p. 3 col. 3 letter complaining of lack of government interest in irrigation in the Konkan.

28) For 1914 see P. C. Patil, *The Crops of Bombay Presidency* (Bombay, 1921) pp. 59-60. The percentage of net cropped area irrigated in Ratnagiri was 6.5% by 1914, as compared to the Presidency average of 3.7%. All the irrigation in Ratnagiri was through privately owned sources, there being no irrigation by government canals. It is notable that the total area irrigated was very close to the total area double cropped: in 1914, 11,868 acres double cropped in Ratnagiri and 11,089 acres irrigated, indicating clearly the limitations on intensifying cultivation in Ratnagiri (P. C. Patil, *op. cit.* (1921) pp. 14-19 and 59-60). For *tugavi* advances, see *Gazetteer of the Bombay Presidency* Vol. XB (Bombay, 1927) p 14.

29) There are no regular price data before 1824, but British officials were of the opinion that prices in the 1830s and 1840s were lower than those under the last years of Maratha rule e.g. BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829, Appendix B, Captain Dowell notes that the high commutation rate set for the *tussur* (part of the grain revenue which was compulsorily commuted to cash) was fixed at the market rate at the time the *tussur* was introduced, in the late eighteenth century. By the late 1820s, this rate was well above the market rate. See also BRP 1841 Range 373 Vol. 37 no. 3614 dated 17.10.1840 para. 5, where the First Assistant Collector in Thana makes a similar point on the relationship between fixed commutation rates and prices.

30) Salaries for Indian employees of the Company were reduced by 15-20% in 1829/30, on the grounds that the price of grain, and of 'almost all articles for the subsistence and comfort of a native' had fallen by about 20-25%: W. Hart, B. H. Ellis and J. B. Dunsterville, *Memo by the Commission appointed to collect information on the subject of Prices as affecting all classes of Government Servants* appointed 1864/5, paras. 11-12.

31) For the effect of the relaxation of trade restrictions after the advent of British rule, see BRP 1829 Range 370 Vol. 19 no. 191 dated 17.8.1829 para. 16.

32) For example *Dowell's Notes* p. 106 describes the *khot* of Sayale village in Sangameshwar *taluka*, an ex-Maratha administrator, who had returned to his village to farm and was losing money.

In Kolaba district, after the British took over from the Angrias' government, the people complained that they were less well off because surplus produce which was formerly consumed locally, by the Angrias' court, was now exported at low prices. *Selections M.S.* no. 7 (Bombay, 1854) p. 62.

33) BRP 1843 Range 374 Vol. 20 no. 4786 dated 28.2.1843, Ratnagiri Revenue Report for 1841/2, para. 14.

34) For details, see BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829 Appendix B sections on 'Wussolee galla' and on 'Mode of receiving grain'.

35) MSA RD 1852 Vol. 19, letter no. 6 dated 2.1.1852 p. 63 para. 22.

36) British Museum ADD 14,375 Pelly on Sea Customs of Southern Concan, letter no. 201 dated 15.7.1819 para. 5. Much rice was exported to Bombay and the Deccan. However the Southern Concan, until 1830, included not only Ratnagiri district, but also *talukas* which later were transferred to Thana and Kolaba districts, which exported rice throughout the nineteenth century, so this is not very conclusive.

37) BRP 1829 Range 370 Vol. 19 no. 191 dated 17.8.1829 para. 16, which mentions cheap grain being imported from Malabar.

38) BRP 1840 Range 373 Vol. 17 no. 3199 dated 29.2.1840 para. 11, BRP 1843 Range 374 Vol. 20 no. 4786 dated 28.2.1843 Ratnagiri Revenue Report for 1841/2 para. 13. also MSA RD 1856 Vol. 14/1435 Part 1 letter no. 118 of 1853 dated 16.1.1853.

39) In Ratnagiri *taluka* the average price of rice (unhusked, second sort) between 1890 and 1906 was 3.7 rupees per *maund*, and in Sangameshwar *taluka* 3.8 rupees per *maund*.

40) BRP 1843 Range 374 Vol. 20 no. 4786 dated 28.2.1843 Ratnagiri Revenue Report for 1841/2, para. 16.

41) See V. Hart, B. H. Ellis and J. B. Dunsterville, *op. cit.* (1864/5), *passim*, on the causes of the inflation. See also D. Kumar and M. Desai eds., *Cambridge Economic History of India* (Cambridge, 1983) Vol. 2 Ch. XI.

42) V. Hart, B. H. Ellis and J. B. Dunsterville, *op. cit.* (1864/5) Tables on pp. 110-113 shows clearly that in the Deccan prices of major cash crops rose much more rapidly from the 1830s to 1860/3 than the prices of cotton cloth, one of the main manufactured items likely to have been purchased by the peasants at the period, but the data for the Konkan (including Thana and Kolaba as well as Ratnagiri), show prices of cotton cloth rising much faster than agricultural prices. However, there are very few observations for cotton cloth prices in the Konkan, and it seems unlikely that Ratnagiri would go against the trend for the area in this respect.

43) *Idem.* Tables on pp. 110-113 suggests that in the mid nineteenth

century wages rose less rapidly than agricultural prices in both the Deccan and the Konkan, though again the data for the Konkan are probably not very accurate.

44) BRP 1843 Range 374 Vol. 20 no. 4786 dated 28.2.1843, Ratnagiri Revenue report for 1841/2, para 15 - the Collector, A. Elphinstone, points out that the only products of the district for which there is a remunerative demand beyond it are hemp and sugar, but hemp exhausts the soil and only a little land is suitable for growing sugar.

45) A cotton farm at Ratnagiri, to which the Collector, A. Elphinstone, devoted much enthusiasm, was shut down in 1845: (*Transactions of the Agri-Horticultural Society of Western India* (Bombay, 1843); BRP 1847 Range 375 Vol. 47 no. 7024 dated 24.6.1846 para. 35. In 1914/15 there were only three acres of cotton in the district: P. C. Patil, *op. cit.* (Bombay, 1921) pp. 14-19.

46) The amount of sugar cane cultivated was small- only 504 acres in the whole district in 1845/6: BRP 1848 Range 376 Vol. 26 no. 16199 dated 1.12.1846 para. 35. Though this had risen to 1,574 acres by 1877/8 (*Gazetteer* (1880) p. 146) it still only represented a small proportion of the total cropped area of the district, and seems to have been concentrated largely in the south of the district, particularly Malvan. Approximately 0.15% of the total cropped area of the district was under sugar in 1914/15 and 1917/18 (2,323 acres) and 69% of this was in Malvan taluka: P. C. Patil, *op.cit.* (1921) pp. 122-5.

47) See Table 5.5. *Tenth Annual Report of the Department of Land Records and Agriculture, Bombay Presidency 1892/3* (Bombay, 1893) pp. xvii-xviii shows that in 1892/3 orchard and garden produce occupied just under 6% of GCA (data from 13% of villages in the district), while in 1917/18 it occupied 7% of the GCA (data from 23% of GCA of district): P.C. Patil, *op.cit.* General Statement no. I and II. By 1832 white betelnuts were being cultivated in taluka Suvernadurg (Khed and Mandangad talukas) exclusively for the Bombay market: BRP 1832 Range 370 Vol. 72 no. 9046 dated 16.8.1832. By 1850 mangoes were being exported from Waghota in Rajapur taluka, (Wingate's Diary Vol. II p. 71), and were also an important export from Mandangad (in Khed taluka) by the 1890s, (*Selections* NS no. 619 (Bombay, 1928) p. 4 para. 2), and from Ratnagiri taluka in the twentieth century: *Selections* NS no. 574 (Bombay, 1920) p. 7. The export of roasted cashew nuts to Bombay was an important activity in Malvan in the early twentieth century: *Selections* NS no. 528 (Bombay, 1915) p. 5. Of tree crops grown in the district, only coconuts were likely to have found a market outside India at this period.

48) e.g. BRP 1835 Range 371 Vol. 62 no. 6259 dated 26.11.1835 petition from Beeknak Walud Govindnak, *Havildar*, suggested that the *khots* made substantial profits from villages apparently underassessed. In reply to a second petition on *khots* in Khed and Mandangad talukas, the government investigated some of the villages concerned, and rejected the suggestion that the *khots'* profit was excessive - the profits being estimated for different villages varying from 33 rupees to 213

rupees per year: BRP 1837 Range 372 Vol. 13 no. 2954 dated 9.9.1836, Report of the Assistant Collector.

49) Villages were usually resigned because the *khots* or *dharekaris* were unable to meet the revenue payments, though they were occasionally resigned because of disputes between the sharers, and the option was open to the owners to reclaim their management on payment of any arrears; for example, *Gazetteer* (1880) p. 205 and BRP 1840 Range 373 Vol. 17 no. 3199 dated 29.2.1840 para. 19 which suggests that the reason for the resignation of villages was the high government demand.

50) The distribution of attached villages between *khoti* and *dharekari* can be seen clearly in the 1840/1 Revenue Report: BRP 1842 Range 373 Vol. 56 no. 3786 dated 5.11.1841 para. 12.

51) The Revenue Report for 1841/2 shows clearly how attached villages were distributed between *talukas*: BRP 1843 Range 374 Vol. 20 no. 4786 dated 28.2.1843 para. 37-39.

52) BRP 1828 Range 370 Vol. 1 no. 10 dated 29.10.1828 enclosure on *talathis* in the Southern Konkan; BRP 1838 Range 371 Vol. 81 no. 6014 dated 3.9.1836 para. 22; BRP 1842 Range 373 Vol. 56 no. 3786 dated 6.11.1841 para. 12. MSA RD 1858 Vol. 19 letter no. 1701 dated 21.10.1854 para. 48. MSA RD 1879 Vol. 92/127 letter no. F/525 dated 8.2.1879 p. 317. All these figures are rather tentative, as distinctions were not always clearly made between villages attached by government for a short period or permanently, and villages let out on long leases were not always included in the statistics.

53) In the 154 *khoti* and mixed *khoti/dharekari* villages described in *Dowell's Notes*, 65 had mortgaged khotiships.

54) For an example of a usufructory mortgage bond see Appendix III. For types of mortgage in Ratnagiri see Pune Archives Pre 1857 Records Rupal 14/4 letter no. 357 dated 13.9 1852 para. 20. Of the 32 villages in Ratnagiri and Sangameshwar *talukas* about which Captain Dowell gives details of the form of mortgage, 26 were truly usufructory.

55) BRP 1847 Range 375 Vol. 47 no. 7028 (enclosed with no. 7024) dated 22.10.1845 on Anjanvel (Chiplun and Dapoli) and Suvernadurg (Khed and Mandangad) *talukas*, para. 78 - practically every village is partly mortgaged.

For an example of the general financial pressure which *khots* were under see BRP 1840 Range 373 Vol. 9 no. 353 dated 22.7.1839 para. 3.

56) Pune Archive Ratnagiri Survey Rupal 14/4 letter no. 1409 dated 7.9.1853 para. 6 describes the three main types of mortgage in the district in the early 1850s. The two first and apparently most important were only nominally usufructory, in that the 'management' of the holding (i.e. paying the government dues and standing the profit and loss), remained with the mortgagor, and the mortgagee took his loan repayments either in the form of a fixed annual payment, or in

the form of an agreed share of the annual profits of the holding after tax, which was formally regarded as a rent to the mortgagee. Only in the third example did the mortgagee take full management of the khotiship. Similarly, in the early twentieth century, the Assistant Settlement Officer commented that though most mortgages in Ratnagiri and Sangameshwar talukas were legally usufructory, in practice they were like simple mortgages, because the mortgagor remained in possession, and his 'rent' to the mortgagee was in fact interest on the loan: *Selections* NS no. 574 (Bombay 1920) p. 11 and *Selections* NS no. 559 (Bombay 1919) p. 9.

57) Between $\frac{1}{2}$ and $\frac{3}{4}$ of the assessment, depending on the district, was compulsorily commuted to cash at fixed rates known as the *tussur* and *ferakht*. For details see BRP 1829 Range 370 Vol. 22 no. 232 dated 1.11.1829 Appendix B. With the fall in prices, these fixed rates became much higher than the bazaar prices - see BRP 1843 Range 374 Vol. 20 no. 4768 dated 28.2.1843 paras. 1-3, which shows that landholders in the district paid approx. 29% above the bazaar price in fixed commutation rates. Though the government reduced the fixed commutation rates slightly in 1842/3 - BRP 1844 Range 374 Vol. 44 no. 7292, dated 30.1.1844 para. 4 - until the 1860s they were still in general higher than the bazaar rates.

58) Overall payments by the taluka were decreased in the case of Ratnagiri (*Selections* NS no. 377 (Bombay 1898) Appendix R letter dated 27.4.1869 para. 9), Sangameshwar (*Selections* NS no. 171 (Bombay 1885) p. 9 - a drop of 17%), and Rajapur (*Selections* NS no. 253 (Bombay 1892) p 16 para. 38) and increased in Mandangad (MSA RD 1870 Vol. 137/1062 petition from landholders of Peth Mandangad, pp. 389-90), Dapoli (MSA RD Vol. 40/583 letter no. 303 dated 25.2.1869 para. 9 - a 36% increase over the previous 10 years' average payments), and Devgad (*Selections* NS no. 253 (Bombay 1892) pp. 14-16).

59) Many Collectors commented on the discouraging effect of taxation policy on the development of such crops as sugar, coconuts, and hemp, e.g. BRP 1837 Range 372 Vol. 25 no. 7651 dated 24.11.1837 para. 9 - sugar cane was not being grown in the district because traditionally land growing sugar cane would be assessed at a very high rate, as was hemp (para. 14). For further complications in the system of hemp taxation, see BRP 1840 Range 373 Vol. 12 no. 1360 dated 30.1.1840. In MSA RD 1855 letter no. 29 dated 23.3.1855 paras. 5 and 6 the Survey Officer explained the operation of the tree tax and how this discouraged the extension of coconut gardens.

60) C. Lis and H. Soly, *Poverty and Capitalism in Pre-Industrial Europe* (London, 1979) p.100.

61) Though a precise comparison cannot be made, it is clear that the soil and climate and the topography of Ratnagiri district presented peculiar difficulties. The soils in Ratnagiri and the neighbouring districts of Kolaba and parts of Thana were thin and porous; the monsoon was shorter there than in most parts of Western India; furthermore, there was less level land in Ratnagiri than in Thana and Kolaba. All these factors made the creation of rice land, and the

intensification of cultivation through double cropping and irrigation, more difficult and expensive. See Chapter 5 and P.C. Patil, *op.cit.* (Bombay, 1921) pp. 10-12.

62) BRP Range 374 Vol. 44 no 7297 dated 15.2.1977.

63) In Ratnagiri and Sangameshwar *talukas* in 1829-32, only one *khot* was from the *Vani* (merchant) caste (*Dowell's Notes passim*). There were only a few cases where the *khot* appeared to be involved substantially in grain dealing (*Dowell's Notes* pp. 162 and 280); most of their transactions appear to have been connected with paying the revenue (e.g. p. 65), though a number of *khots* appear to have arranged for their tenants to hawk their surplus grain round the neighbouring villages for them (e.g. pp. 138, 240 and 340.) A few *khots* were clearly substantial grain dealers, in that they were prepared to bid for a share of the *taluka* grain revenue at the government auctions, but this could be misleading, as bidders at these auctions often appear to have been acting for other people e.g. *taluka* officials in the employ of the British who were not supposed to be bidding): BRP 1823 Range 368 Vol. 40 no. 6030 enclosed with no. 6028 dated 13.6.1823.

64) 80% of the mortgagees were *Brahman* in Ratnagiri and Sangameshwar *talukas* in 1829-32: *Dowell's Notes, passim*.

65) MSA RD 1883 Comp. 1934 Agriculture, letter no. 40 of 1883 'Report on the Grain Trade of the Deccan' by A.B. Fforde, Assistant Superintendant, Revenue Survey dated 13.11.1883. See also J. Banaji, 'Capitalist Domination and the Small Peasantry. Deccan Districts in the Late Nineteenth Century' in *Economic and Political Weekly Special Number* August 1977.

66) MSA RD 1870 Vol. 40/405 letter no. 1 dated 11.2.1870 para. 8.

67) For a general observation on the economy of the district, see BRP 1821 Range 368 Vol. 15 letter dated 21.11.1821 p. 5710 para. 10, where the Deccan Commissioner observes that the *khoti* system kept the peasantry out of the cash economy. On agricultural wages paid partly or wholly in kind, see *Dowell's Notes* pp. 37, 43 and 59. The situation appears to have changed little, at least in the remoter rural areas, by the 1920s: see *Selections MS* no. 627 (Bombay, 1929) p. 57.

68) In Ratnagiri *taluka* in 1914, the periodic markets were at Harcheri, Tond and Satavli, and there was also a daily fruit and vegetable market in Ratnagiri town: *Selections MS* no. 574 (Bombay, 1920) p. 8. While the market in Ratnagiri served the town and Collectorate headquarters, the other markets were all well inland, and on the main creeks. Interestingly, of the additional markets which had developed by 1961 two, Pali and Nani, were close together on the main road through the *taluka* towards the Ghats, and one, Malgund, was by an important pilgrimage centre: *Census of India 1961* Vol. X Part VII v pp. 55-6. In Sangameshwar *taluka*, the weekly markets in the 1880s were at Sangameshwar, Nakhjan and Devrukh, on the through routes, or

in the case of Devrukh at the *taluka* headquarters. (*Selections* MS no. 171 (Bombay, 1885) p. 5 para. 15.

For an example of the exchange of regional staples, see 'Wingate's Diary' Vol. 2 p. 80, on the market at Harchiri, in Ratnagiri *taluka*, where salt fish brought by fishermen from the coast was exchanged for firewood and grain brought in by the peasants. There are many other examples which indicate that this was the basic trade in such markets e.g. *Selections* MS no. 253 (Bombay, 1892) p. 8 on markets in Deogad *taluka*.

69) MSA RD 1871 Vol 49/668 letter no. 107 dated 18.3.1871 p. 219 para. 3.

70) For example *Dowell's Notes* p. 240 where peasants are doing the selling for the *khots*. See also 'Wingate's Diary' Vol. 2 p. 75, where many peasants especially *dharekaris* are said to trade with bullocks in the dry season, selling grain, peppers etc. round the villages as well as the bazaars. Many peasants would have had to walk 10 or 15 miles to their nearest periodic market - peasants brought produce to the bazaar at Satavli in *taluka* Sangameshwar from a 10-15 mile radius: *Selections* MS no. 171 (Bombay, 1885) p. 5; and peasants on the eastern side of Sangameshwar *taluka* frequented the bazaar at Mulkapur in Kolhapur, above the Ghats, a distance of at least 15 miles: *Selections* MS no. 171 (Bombay, 1885) p. 5.

71) For example, 'Wingate's diary' Vol. 2 p. 80 which clearly indicates that barter was used. The situation in this market in Harchiri was apparently exactly the same in 1914 *Selections* MS no. 574 (Bombay, 1920) letter no. 855 dated 11.9.1914 para.33. These markets were predominantly peasant markets, and merchants were not involved in buying and selling here. The only instances which I have found in Ratnagiri district of periodic markets being used in the nineteenth century for buying and selling by merchants were in Kharepattan, an important centre in the eighteenth century, where imported cloth was sold in the weekly market to merchants from above the Ghats, and in Satavli, also important in the pre-British period, where merchants from the Deccan bought salt and salt fish imported from Goa: *Selections* MS no. 253 (Bombay, 1892) p. 8, on Kharepattan and *Selections* MS no. 574 (Bombay, 1920) Appendix B letter no. 45 dated 10.2.1873 para. 10, on Satavli.

72) *Dowell's Notes* p. 245 on Peth Makhjan and p. 17 on Peth Ibrahampur and BRP 1845 Range 375 Vol. 8 no. 7750-53 on a *khot's* attempt to establish a *Peth*. For any extensive transactions in the sale or purchase of grain, people in Sangameshwar *taluka* went to the *Peths* at Makhjan, Sangameshwar or Sakharpe (Ibrahampur), or to one of the larger villages with a number of merchants' shops such as Devrukh: *Selections* MS no. 171 (Bombay, 1885) p. 5 para. 15). In Rajapur, cultivators appear also to have sold mainly to grain dealers: *Selections* MS no. 222 (Bombay, 1888) p. 6. The situation was similar in the northern *talukas*, where Haro Gole, a member of the Khoti Association, from Dapoli, complained in his evidence to the Khoti Commission that the markets were not convenient, and therefore the peasants had to sell their grain to the merchants: MSA RD 1875 Vol

61/526 Report of a Commission to enquire into the *khoti* tenure questions, Report of Mr Naro Goley para. 6.

73) BRP 1843 Range 374 Vol. 20 no. 186 dated 28.2.1843 para. 16. For variations of prices between markets, see Table 6.2.

74) *Dowell's Notes*, pp. 245 and 17.

75) *Census of Bombay Presidency 1872* Part II p. 267.

76) A. M. Vicziany, 'The Cotton Trade and the Commercial Development of Bombay 1855-1875' PhD. London 1975 pp. 287-290.

77) A. M. Vicziany, *op.cit.* (1975). Also see Poona Sarvajanic Sabha, *Report on the Deccan Riots* (Poona, 1875).

78) In 1891, the Census shows that, of the 34,183 whose occupation was listed as trader, 14,259 had no regional or religious specification, but of the rest, 11,240 came from the Konkan, and 5,657 from Patan, just over the Ghats in Satara district. There were only 713 *Gujerati Vanis*, and 58 *Marwadis*: *Census of India 1891* Vol. VII Part II Table XVIIB pp. 300-371.

79) MSA RD 1873 Vol. 57/305 letter no. 57 dated 10.1.1873, the Settlement Commissioner, Col. Francis, (p. 371 para. 7), describes Chiplun as a 'wretched, straggling little town with hardly any good houses', and explains this by the fact that the trading part of the population only live there in the dry season, and leave at the approach of the monsoon: 'there are a few *sowkars* of small capital trading on their own account, but most of the business is done by commission through the local dealers or by agents sent specially from Bombay.' These merchants were not dealing with local produce since Chiplun was 'only really a depot', where produce brought for export to Bombay, and goods imported from Bombay go into the hinterland and apart from the villages immediately round Chiplun, and on the road to the Ghat, the district derived little benefit from the trade.

80) BRP 1832 Range 370 Vol. 72 no. 6046 dated 16.4.1832; 'Wingate's Diary' Vol. II p. 71; *Selections MS* no. 619 (Bombay, 1928) p. 4 para. 12; *Selections MS* no. 574 (Bombay, 1920) p. 7; *Selections MS* no. 528 (Bombay, 1915) p. 5.

81) See IOL Elphinstone papers Mss. Eur. F88 Box 6F 47 'History of Talooka Ryeghur (drawn from the old natives of the district)' - the *khots* advance money to the *ryots* at 25% p.a. interest, and grain at 100% interest. BRP 1821 Range 368 Vol. 15 letter dated 21.11.1821 p. 5716 para. 17, suggests that the *khot* takes the place of the village *banian*. BRP 1828 Range 370 Vol. 1 no. 10 dated 26.8.1828 para. 38 also suggests that the *khots* lend their tenants seed and money at the beginning of the cultivating season.

82) *Dowell's Notes* p. 61 suggests that *kunbis* have to borrow grain to last the year, at 25% p.a. interest; also p. 126 comments that the

khots in the area generally 'sell' (*sic*) one sixth of their grain to their own *ryots* at 25% interest.

83) *Dowell Notes* *passim* e.g. p. 33. It is suggested here that the *khots* employ debt bonded labourers because of a shortage of labour.

84) Though *khots* apparently gave money regularly in some areas for tenants to open up cultivation (i.e. cutting down brushwood and digging and ploughing new land) there rarely appears to have been any allowance in rental agreements for cultivators to make improvements to their holdings. In *Dowell's Notes*, for instance, there is a reference to what could be described as a cost share lease, in Burbad, a *dharekari* village, where the cultivator provided the seed, and the landowner provided the plough and the buffaloes, and this was described as very unusual (p. 265 see also p. 248.) Only one other example is given of such an arrangement (p. 148). There is also one reference to a *khot* making a reduction in the rent if the cultivator manured the land, but charging half the crop if he himself had to manure it (p. 386). It is perhaps significant that in all these cases, the village was *dharekari* (the *khots* being like *patels* in these villages).

85) For example, most of the *khotiship* of Sonavde in Devrukh was mortgaged to a local Muslim, probably a merchant: *Dowell Notes* p. 33; part of Katavli was mortgaged to Muslims from Sangameshwar: *idem* p. 116.

86) Some 80% of mortgagees of *khotiships* detailed in *Dowell's Notes* were *Brahman*. There seem to be plenty of examples of *khots* lending to other *khots* e.g. Abaji Yeshwantrao Kosumbkara, one of the *Devrukh Brahman khots* of Kosum, in *taluka* Sangameshwar, (*Dowell's Notes* p. 123), had a mortgage of part of Sagave (p. 87), and Kond Kadamrao (p. 74). See also Appendix IV, mortgage bond from 1850.

For a similar pattern of lending by landlords rather than professional trading castes, see D. Washbrook, 'Economic Development and Social Stratification in Rural Madras: the 'dry region' 1878-1929', in ed. C. Dewey and A. Hopkins, *The Imperial Impact: Studies in the Economic History of Africa and India* (London, 1978) pp. 71-72, on the dry areas of Madras, though the pattern of economic change here was rather different to that in Ratnagiri district, with the landlords themselves turning over successfully to cash cropping - largely, it appears, because of the profits offered by growing and processing cotton.

87) For an analysis of the Farm Management data, see K. Bharadwaj, *Production conditions in Indian Agriculture* (Cambridge, 1974).

88) A. Sen, 'Market failure and control of labour power: towards an explanation of 'structure' and change in Indian agriculture. Part I' in *Cambridge Journal of Economics* 5, 1981.

89) R. Pearce, 'Sharecropping: Towards a Marxist View', *Journal of Peasant Studies* 10,2/3,1983.

90) S. Cheung, *The Theory of Share Tenancy* (Chicago, 1968).

91) For example, C. Bell, 'Alternative theories of sharecropping: some tests using evidence from M.E. India', *Journal of Development Studies* 13,4,1977.

92) *Dowell's Notes*, p. 152. For other examples of tenant enthusiasm for fixed rents see *idem* p. 207, and MSA RD 1879 Vol. 106 letter no. 269 of 1879 enclosing petition dated 10.2.1879 from *khoti* tenants in favour of fixed rents.

93) See *Dowell's Notes*, pp. 169 and 253, for an example of tenants returning to crop share after the *khot* raised the rate of *maktas*.

94) For example, *Dowell's Notes* pp. 44 and 207.

95) *Dowell's Notes*, p. 152.

96) *Dowell's Notes*, pp. 148, 248 and 265.

97) As has been pointed out in Chapter 4, most plough cattle in Ratnagiri district were owned by *Brahmans*. On the issue of the manpower available in small landholding families, many studies show a positive relationship between family size and landholding: see for example, M. Cain, 'On the Relationship between Landholding and Fertility', *Population Studies* 39,1985, on the relationship between marital fertility and landholding, especially pp. 12-15 on rural Bangladesh, where a largely natural fertility regime prevails. In *Census of India, 1931* Vol. VIII Part I p. 32 sub-table VIII 'Fertility in the British Districts of Bombay Presidency', of the main castes and religious groups, the 'Hindu Backward castes' had the lowest average number of children born per family, and the lowest average number of children surviving per family, while the 'Advanced Hindu castes' had the highest. It appears, therefore, that the lower caste families were much more likely to find themselves without a healthy adult male in the family than were higher caste families.

98) *Selections* NS no 574 (Bombay, 1920) p. 4 para. 18.

99) According to V. C. Ranade, *Social and Economic Survey of a Konkan Village* (Provincial Co-operative Institute, Bombay, 1927), 5 acres of rice land in the Konkan, or 20 acres of hill land in the Deccan, was an 'economic' holding, sufficient to feed a family. H. H. Mann, *Land and Labour in a Deccan Village* (Bombay, 1917) suggests 10-15 acres of hill land in the Deccan, and a calculation using his estimate of 3,000 lbs of grain per year per family as a bare subsistence, suggests that approx. 4 acres of rice would be needed. However, it is difficult to draw a simple line between subsistence holdings and those which provided a regular surplus above subsistence in Ratnagiri district, because the quality of soils varied so greatly. Much of the hill land

in particular was extremely poor, and apparently large holdings could contain mainly rock. For this reason, the land tax on a holding is a more reliable indicator than its acreage. An investigation of the Settlement Records in Ratnagiri would suggest that a dividing line of 30 Rupees p.a. tax on a holding represents a holding sufficient to support even a good sized extended family, and provide a regular surplus.

100) In the Revision and 2nd Revision Settlement reports, which published the area of rice, garden and hill land in each village at the time of the Reports, no increases in rice land were shown as this was not taxed, being a tax on improvements (see Appendix III).

101) See note 97.

102) Pune Archive, Revenue Commissioner Central Division Records Miscellaneous Vol. 245; the census of Ratnagiri District in 1851 showed that though there were fewer cattle per head of the population in Malvan compared to other *talukas* in the district, there were more carts, ploughs and wells.

103) J. Mencher, *Agriculture and Social Structure in Tamilnadu* (Carolina, 1978) p. 164.

104) See J. Bhagwati and S. Chakravarty, 'Contributions to Indian Economic Analysis: a Survey', *American Economic Review* Sept, 1969.

105) Settlement Records for Kasba Nevre, Appendix D. That persons with the same surname are related may be a large assumption to make; however, it has been used by historians in other contexts, e.g. Z. Razi, *Life, Marriage and Death in a Medieval Parish: Halesowen 1270-1400* (Cambridge, 1980).

106) A. Sen, *op.cit.* (1981) pp. 220-222.

107) Most of the cash crops grown in Ratnagiri needed irrigation (tree crops such as mangoes, coconuts and betelnuts, vegetables and sugar cane) and only 6.6% of the net cultivated area was irrigated in 1918: P. C. Patil, *op.cit.* (1921) p. 59.

CONCLUDING REMARKS

In this thesis I have investigated the origins of the tradition of migration which developed in Ratnagiri district from the mid nineteenth century. Approaches to the study of labour migration have often explained the development of labour catchment areas in terms of exogenous demand: areas of the economy with higher real wages and higher demand will attract labour from the areas of lower demand; the distribution of labour catchment areas is explained by the uneven development of transport networks and networks of information and recruitment such as chain migration or the agency of jobbers. This approach is clearly essential to an understanding of the origins of migration from any labour catchment area. In the case of Ratnagiri district the development of a labour market in Bombay, the long-standing system of coastal transport and the information conveyed by the boatmen and fishermen were all necessary conditions for the development of migration. However, they do not provide a sufficient explanation for the trends in migration from the district over time, the widespread migration of lower caste agriculturalists from the inland as well as the coastal areas, or the high rates of migration from Ratnagiri compared to other areas similarly situated in their access to Bombay. As has been argued in Chapter 2, even the relatively low level of wages in Ratnagiri cannot be taken at face value as indicative of low levels of demand within the economy.

Many approaches to the study of the causes of migration have seen individual or household decision making as central to any explanation of the migration process, and an analysis of the costs and benefits of migration at this level are therefore seen as explaining the development of migration. In the case of Ratnagiri district an understanding of the costs and benefits to individuals and households of migration to Bombay is clearly important in explaining the patterns

and trends of the migrant stream. The development of seasonal and circular migration from the district and the low female participation in migration have been seen in this thesis to be related to the costs which households would incur if married women migrated to the city. It could also be argued that models of household decision making can explain the investment patterns of cultivators and that the migration of cultivators can be explained as the outcome of a conscious decision to migrate rather to invest time and labour in their holdings. Here again, however, this approach risks falling short of a real understanding of the migration process. Implicit in many such models is the assumption that individuals and households have a real choice, which in the case of low caste, subsistence cultivators is often not the case. Moreover, unless they are located in a clearly defined cultural context, any generalisations on the household decision making process have to be treated with great caution. To provide a meaningful explanation of the historical process of migration, any decision making models must be related to the changing socio-economic structure of the labour catchment area.

Fundamental to this thesis, therefore, is the contention that migration can only be fully understood as the end product of a complex process of historical change. In this investigation of Ratnagiri district it has been my aim to investigate the history of one of the main labour catchment areas for Bombay city, in order to explain the structural changes which brought about large scale rural-urban labour migration.

I have argued that from the late eighteenth century Western India had entered a period of political and economic crisis, as the pressure of European colonial expansion stimulated military conflict between Indian powers, as well as between Indian states and the British. This led to greater pressure on the military system of the *Narathas*, who had been expanding rapidly earlier in the century, and had already faced a long battle with the Mughul empire. In Ratnagiri rising taxation and the pressure to increase agricultural production led to the extension of the already established *khoti* system to the majority of villages in the district. The increasing concentration of land control into the hands of a few individuals in each village in the

person of the *khots*, appears to have led to increases in levies on the peasantry, and to have kept agricultural wages down through forced labour, while also increasing the power of the high caste *Brahmans* in the district.

It seems probable, from the investigations in this thesis, that the poverty of the lower caste cultivators, especially the *Kumbis* explains the original development of labour migration from the district in the 1840s, after the initial contacts had been made with Bombay through the boatmen and fishing castes and through the army. It seems unlikely that rising population pressure on land could explain this early development of migration. However, from the 1850s the evidence presented in Chapter 3 suggests that there was a rapid growth of population in the district, which began to put further pressure on living standards. It seems feasible to argue that this rising population was caused by the improving levels of nutrition, which resulted from the increasing imports of grain into the district, made possible by rising cash incomes from migration. The evidence presented in this thesis shows that levels of mortality from epidemic disease did not fall significantly in the course of the nineteenth century, and that agricultural output per head is unlikely to have risen. The evidence also shows that birth rates probably did not rise, as the age at marriage actually fell slightly in the later years of the century (the nominal rise in the birth rate being only indicative of improved enumeration).

It is argued in Chapter 5 that the rising population put severe pressure on agriculture during the later nineteenth century, because of the particular climate and ecology of Ratnagiri, which meant that extension and intensification of cultivation led to deforestation, soil erosion and leaching of the soil. However, the response of the cultivators to pressure on land is seen in Chapter 6 to be related to the system of land tenure as it developed in the late eighteenth and early nineteenth centuries. In the smaller *dharekarí* holdings, it has been argued, subsistence cultivators invested significantly in creating rice land in their holdings, thus raising the output per acre of their land, while the small cultivators in *khotí* villages invested in rice land to a much lesser extent. It also seems clear that the larger

landowners, both *khoti* and *dharekari*, were reluctant to invest heavily in rice cultivation, while the merchants were deterred from involvement in the district by the absence of a suitable cash crop. The evidence suggests that in those areas where there was extensive rice and garden cultivation in the early nineteenth century, in the south of the district, the higher labour demand in these areas reduced the rate of migration in the nineteenth century, which was confined largely to the more skilled and professional classes.

There are a wide variety of models of economic change and development used by historians and economists which can provide a context within which these particular developments in Ratnagiri can be located. On the one hand, in the conditions of Ratnagiri district in the nineteenth century, the neo-Malthusian models which accord a key role to demographic change appear to have some relevance. However, the evidence presented in this thesis suggests that there is no simple relationship between population pressure on land and out-migration. Nor, on the other hand, does this thesis lend much support to the straightforward anti-Malthusian proposition that population pressure leads to output-raising investment and innovation in agriculture, which would have raised real incomes and demand in Ratnagiri district and reduced the need for out-migration. The evidence suggests, rather, that this investment and innovation will only occur when the land tenure and taxation system secure for the cultivator some tangible benefits in return for his time and labour in agricultural improvement.

Thus the argument of Brenner, in the context of early modern Europe, that the engine of socio-economic change in rural society was not demographic change *per se*, but the consequences of demographic change 'refracted through the prism of social-property relations', bears a clear relevance for developments in Ratnagiri. It is argued in this thesis that the changing balance of power in the village, firstly in the late eighteenth century with the extension of the *khoti* system and then in the early nineteenth century with the application of British law to *Maratha* land tenure, increased the impoverishment of the lower caste peasantry and stimulated the initial migration to Bombay. It is further argued that the nature of the impact which

rising population had on the district in the mid nineteenth century was determined to a substantial extent by the structure of land tenure; on the one hand, the concentration of land control in the hands of the *khots* in most villages reduced their incentive to invest in increasing production, since their subsistence needs were more than met, while their position was guaranteed by the British; on the other hand the majority of subsistence cultivators had no security of tenure, which limited their willingness to increase production in the face of rising population pressure. Furthermore, the distribution of land in the village had the effect of increasing differentiation under population pressure, as the lower caste and poorer cultivators farmed the lower quality hill land, which was the most adversely affected by the deforestation and the intensification of cultivation. They were also, by reason of their poverty, unable to afford the inputs of manure, and the experiments with better quality, later ripening rices, which could have raised the out-put of their holdings. Thus the distribution of land and power in the village ensured that the poorer cultivators paid, with declining out-put per acre, for any development of more intensive rice farming by the wealthier.

The development of migration is therefore seen as at the root being concerned with the distribution of wealth and power within the village, and with the relative and absolute poverty of a substantial section of the population in Ratnagiri. To argue that this poverty increased during the early years of British rule is not to idealise the pre-British period. As I have shown, the endemic poverty in eighteenth century rural society was officially acknowledged by the *Naratha* government through the provision of tax concessions. Moreover, many of the cesses and taxes of the late *Naratha*/early British period which placed such a burden on the cultivators have their origins at least several centuries before. However, it is axiomatic that migration on the scale on which it occurred from Ratnagiri district, in an undeveloped rural society such as that of Ratnagiri in the nineteenth and early twentieth centuries, must have had its roots in absolute poverty, not merely in the relative poverty which adds a stimulus to some modern rural-urban migrations. The hardship entailed, the division of families so graphically shown by the census statistics for

the district, add emphasis to this point. Moreover, the evidence presented in this thesis suggests that the poverty of certain sections of the population, notably the *Kunbi* cultivators, was increasing during the nineteenth century as the balance of power shifted in favour of the *khots*. The evidence presented in Chapter 4 shows that this balance was to some extent redressed by the 1880 Khoti Act, which provided protection for a substantial proportion of these cultivators, but that nonetheless the Act left the rest completely unprotected - an underclass of tenants in the village. Significantly, these were the *Kunbi* and lower caste cultivators, and so over the century differentiation on caste grounds was compounded by differentiation on class grounds, and this division on class grounds in fact paralleled the earlier division of the village on grounds of caste.

A central underlying theme of this thesis has been the impact of colonialism on the economy and society of Ratnagiri district. This operated in two ways, through the political/legal system of the British colonial government, and through the colonial economic system by which India was linked to metropolitan and world capitalism.

Because of its relative isolation from other areas of Western India, the main channel through which Ratnagiri was linked to the wider colonial economy was Bombay city. Though some export of primary products to the city did develop in the course of the nineteenth century, the main link between Ratnagiri and Bombay was through the export of labour from Ratnagiri. The several models of rural-urban migration, both in a colonial and a post-colonial context, range from the classical and neo-classical models of Lewis and Todaro to the Marxist models developed initially in the context of Africa. However inherent in most of them, in the Marxist as well as the neo-classical models, is the concept of dualism, whether this is expressed as the dualism between the more efficient capitalist economy and the lower demand and low marginal productivity in the rural areas, or whether it is expressed as the dualism between capitalism and feudalism.

However, this dualism inherent in most models of migration is not always satisfactory in explaining the relationship between Ratnagiri and Bombay city in the nineteenth century. Though by the end of the nineteenth century Bombay had become one of the major industrial

cities in India, in the mid nineteenth century, when the migration to Bombay from Ratnagiri began, the city could hardly be described as a capitalist industrial centre, and indeed differed little in the type of employment offered from indigenous Indian cities at the time. Ratnagiri on the other hand was changing fundamentally in the early nineteenth century as a result of the new power structure and legal system of the colonial state. It has been argued in Chapter 4 that the changes in the legal status of the *khots* and their tenants, along with the changing sources of political power and social control available to the landed classes, fundamentally changed the nature of rural society in Ratnagiri in the nineteenth century and led to the development of quite well defined classes of landlords and tenants by the end of the century. It has also been argued in Chapter 6 that the system of taxation introduced by the *Maratha* government in the late eighteenth century and preserved by the British for half a century, discouraged investment in agriculture. These changes in agrarian society in Ratnagiri, arising in part from the deliberate policies of the colonial government and in part from the legacy of their predecessors, encouraged the development of out-migration to Bombay. However, this should not be taken as giving support to the view that the British administration, representing the interests of the capitalists in India, applied these policies in order to free labour for the industrial development of Bombay. In the first place, the British policy makers found their hands tied in dealing with the *khots* not only by the premature judgements of the law courts, but also by the power of the *khots* themselves, who had become so well entrenched in the later years of *Maratha* rule that they were difficult to remove (while village *zamindars* in the northern Konkan were easily ejected in the early 1820s.) Secondly, it was generally held by British administrators in the early half of the nineteenth century that the economic interests of both Britain and India would be best served by removing tenure such as the *khoti*, which were seen as 'feudal' and a hindrance to economic progress, so that the cultivators could be exposed to the forces of the market, and would be free to sell their labour to their best advantage. As has been shown in Chapter 4, the continuation of the *khoti* tenure, in spite of the best efforts of

Vingate, other members of the survey department and most of the Collectors to abolish it, was a decision based on political expediency, not on economic calculations.

While the Marxist models of migration are pessimistic concerning the long term impact of migration on the sending society, assuming it will increase exploitation as the sending society is forced to bear the costs of the reproduction of labour, the classical and neo-classical models are more optimistic, assuming that migration can have a beneficial impact on the sending society by raising labour demand and the marginal productivity of labour, and by bringing cash, in the form of remittances, and technical expertise into the sending society, thus encouraging investment and the development of local industry and a cash economy. Studies of the impact of labour migration on the sending societies in recent years have been less optimistic, and the evidence from Ratnagiri tends in general to support the pessimistic view. On the one hand, it has been argued in Chapter 3 that the rapid rise in population in the mid nineteenth century could very probably be an outcome of the development of migration, and that migration could therefore be said to have had a positive impact on living standards in the district in the short run. Remittances to the district through the Post Offices in the 1920s, and the income from military pensions, suggest also that the district gained some benefits from the migration, though most working class budgets in Bombay left little room for savings. However, there is not much evidence as to whether these remittances were used for agricultural improvement. It does seem possible that some savings were spent on buying land as security, since in the 1920s the price of small parcels of hill land, not a very productive investment, were substantially higher relative to their tax assessment values than the prices of rice land. Moreover the evidence presented in Chapter 5 on the increase in irrigation in the early twentieth century, and the extension of rice cultivation in the northern talukas in the late nineteenth century, might possibly have been financed in part by emigration. On the other hand, the long term view of the impact of migration on Ratnagiri must be more pessimistic. Even in the 1920s, survey officers believed that the remittances of migrants were not being used for investment in

agricultural improvements but simply for consumption, and revenue officials in the 1970s in Ratnagiri have reiterated this view. The Gazetteers show that by the late 1950s Ratnagiri's agriculture had changed little in the proportion of rice cultivation, irrigation and double cropping from the position in 1914, while the average size of holding had halved. Though the *khoti* system was abolished in 1950, and the permanent tenants and some tenants at will were given full proprietary rights to their land, and though educational standards were higher in Ratnagiri than many other parts of Western India, the district still had little industry and there were few employment opportunities. For many families, migration to Bombay had now become a way of life, and Ratnagiri district remains to this day one of the least developed areas of Maharashtra.

In using British colonial records to chart the changes which took place in Ratnagiri district there is, clearly, a danger that the observations of British officials could be influenced by their desire to exaggerate the benefits of British rule and to play down its adverse effects, or to promote their own particular views on society. This danger is obviated to some extent, particularly in the earlier decades of British rule in the district, by the disagreements clearly revealed in the records between Collectors in the district and the government in Bombay, and between different branches of the administration, on the developments which were taking place. The value of the British administrative records is further enhanced in these decades by the wealth of detailed description of the district, which amply compensate for the poorer quality of the official statistics in the earlier period. Though as an observer of village work and organisation Captain Dowell stands out, both in his official reports and in his notes, which have formed an important source for this thesis, the Collectors and survey officers in this period did not simply confine themselves to the stereotyped formulae of many later reports, but commented liberally on the society and economy of the district. Through their reports, moreover, it is often possible to discern the opinions of the Indian clerks, *mamlatdars* and dignitaries on whom, as is well known, the British were forced to rely for information and assistance in controlling the districts they ruled.

However, the British records clearly have many weaknesses as a source, in particular, in the case of the study of migration, the relatively little interest paid to issues which did not directly relate to revenue or law and order. The study of the lives of the ordinary cultivators and their migration in the nineteenth century forms the theme of this thesis, and yet not only did the official records of the time pay little attention to migration, but the voice of the cultivators themselves has rarely survived from this period. While the concerns of Western educated high caste professionals from Ratnagiri who migrated to Bombay or Poona were sometimes expressed in the journals and newspapers of the period, their interests and experiences were very different from those of the lower caste cultivators. Very few of these peasants were literate in the nineteenth century. In Tural village in *tarf* Sangameshwar, for instance, of the 54 cultivators in the village only three (the only *Brahman*, a *Gurav* and Goldsmith) could sign their names in the rent schedule of 1885; the rest signed by drawing a symbol of their occupation - a sword for those in the army, a scythe for the farmers, a flute or an incense burner for the *Gurav*, a stick for the *Mahar*. Occasionally, however, the comments and opinions of the ordinary cultivators were noted down by British officials. In Captain Dowell's Notes, for instance, he appears in many cases to be writing down a literal translation of what was said to him by village officials and ordinary cultivators as he toured through the villages, and he made a special point of talking to the cultivators wherever possible when the *khot* was not there. The cultivators' own view on their society also emerge at times through petitions to the British government in the 1820s-50s, and in the judicial records which note details of the activities of the poorer peasants such as banditry, common in Ratnagiri in the 1820s, and the occasional dramatic incident such as the murder of a *khot*.

The aim of this study has been to investigate the changing economic, social and demographic structure of Ratnagiri district during the British colonial rule, set in the context of the ecology of the region, in order to explain how the interrelationship between these various factors encouraged the development of a tradition of out-migration from the district in the nineteenth century. My conclusion that the

role of the land tenure system was central to this process does not imply, however, that all districts with a similar system of land tenure should be found to have a high rate of out-migration. As I think my investigations have made clear, the historical process which led to Ratnagiri becoming the main labour catchment area for Bombay city in the nineteenth century was a very complex one, and though meaningful generalisations can be made on the role of land tenure, colonial rule and demographic change in the origins of migration, ultimately each historical case is unique.

APPENDICES

APPENDIX I.

Eighteenth century house tax and other household records for Ratnagiri district.

The most useful records are the house tax records for each village. I have used the 15 surviving house tax records for *tarf Sangameshwar, Ratnagiri taluka* (later under the British this area became *Sangameshwar taluka*), which are available in the Peshwa Daftar in Pune Record Office (Konkan Jamao Rumal 496 and 497). These records all date from 1790 except for those of the villages of Kalbaste (1758), Ragaon (1789), Ujgaon (1796) and Wandri (1796). These records list the current number of houses in the village, and the name of the household heads, and indicate those household heads who are widows, widowers, single or destitute men, *Brahmans* or slaves, since none of these groups paid tax at the full rate. In some cases information is given on the caste of all household heads: those who have migrated recently to the village: those who have separated from a relative and set up a new household recently: instances where a new head has taken over the household since the last survey, and similar details. In five cases, Wandri, Ujgaon, Tural, Ragaon and Dingni, the records give details of all increases and decreases in the number of households since the last survey, together with the reasons.

The house tax records can be supplemented by the *karsai* tax records, used by the Peshwa's government for calculating the amount of tax in kind, in the form of grass, ropes, torches and other provisions, which had to be paid to the forts by the surrounding villages. These records are available for all the 15 villages with house tax records in *tarf Sangameshwar*. They list all the houses except those of *Brahmans*, slaves, *khots*, beggars and people who paid tax in another village, and give some information on caste and the number of widows, widowers, beggars and single men.

The Dating of House Tax Records

According to the Collector of Ratnagiri, the house tax survey was taken every 10 years in Ratnagiri taluka (BRP 1837 Range 372 Vol. 14 no. 3189 dated 18.2.1831 para. 3) though *khoti* villages which had lapsed to government had an annual survey. The house tax records themselves give the date of the current survey, but not of the previous survey, but simply refer to it as *gudast* which literally means 'last year' (see J. T. Molesworth and T. Candy, *A Dictionary of English and Marathi* (Bombay, 1847)). This translation would imply an incredibly rapid rate of change in some villages, and *gudast* should probably be properly translated as 'last time'. If surveys were taken every 10 years, then there should have been a survey in 1780, 1770 and 1760 (before 1756, Sangameshwar was not under the control of the *Peshwas*, but of the Angria's government in Kolaba). The existence of house tax records for Kalbaste village for 1758 suggests that a general survey was made in that year. There was almost certainly a survey in 1767/8, as reductions and exemptions of house tax were announced in that year by the *Peshwa* (BRP 1847 Range 373 Vol 40 enclosure with no. 4464 dated 27.2.1839). This leaves open the question as to whether any survey took place between 1767 and 1789/90, the date on the majority of house tax records. There is no direct evidence on this point, but the changes in the rates of house tax suggest that there was at least one survey during that time. In the house tax records of Kalbaste village for 1758, the rate of tax was 1 rupee 12 annas per house. In 1767/8, however, a reduction of one sixth of the house tax was given on the houses of *kunbis* (and presumably other low castes as well), which would lower their tax to 1 rupee 8 annas. By 1789, another reduction must have been made, as the house tax was down to 1 rupee, (see for example the house tax records for Ragaon translated below). This reduction could not have been made in 1789/90, as where the details of the last survey are given, (as in Ragaon) it is clear that the previous rate was also 1 rupee. Moreover, the house tax records for Kalbaste show that when a change in the rate took place, the change in revenue caused by this is explained in detail (the rate of house tax was raised in 1758/9 from the rate charged by the

previous government). This does not occur in any other of the records. It seems reasonable to conclude, therefore, that there was at least one house tax survey between 1767/8 and 1789/90, and since the surveys were theoretically taken every 10 years, it was probably taken in or very near 1780.

Dating of *karsai* tax records

The *karsai* tax records for *tarf* Sangameshwar were dated 1789. If a survey for the *karsai* tax had been made in 1789, one would have expected the *karsai* records to show a great deal of similarity with the 1789/90 house tax records. However, the two are often very different. For example, in Kuchambe village, though the number of households of the *Maratha* and *Gurav* castes is the same in the *karsai* records of 1789 and the house tax records of 1789/90, and there is only one more *Mahar*'s household in the house tax records than in the *karsai* records, there are 24 *Kunbis*' houses in the house tax records and only 14 in the *Karsai* records. There is no reason to suppose that any *Kunbi* households were omitted because they were exempt from tax. Similarly, in Karambele village, in the house tax records there are two more houses of *Lohar* caste, one more of *Mahar* caste, and six more of the *Kunbi* caste, than in the *karsai* records. However, where there is a house tax survey available which gives the details of the previous house tax survey, it can be seen that this previous list corresponds very closely with the *karsai* records. For example, in Tural village, there are seven more houses (excluding *Brahmans*) in the 1789/90 house tax list than in the 1789 *karsai* records, and according to the 1789/90 house tax records of the village, there were seven new houses in the village since the last house tax survey. There is clearly an identity between the *karsai* records and the house tax records for the survey between 1789/90, and it seems likely that the two were based on the same survey, and that the 1789 *karsai* records, being drawn up before the house tax survey begun in that year was completed, were based on the old house tax survey of 10 years earlier. The *karsai* records can therefore be used, along with those house tax records which give details of the earlier survey, to estimate population in c. 1780, and to calculate growth rates from 1780 to 1790.

Translation of house tax records of Ragaon village
from Pune Archive, Konkan Jamao, Rumat 497

Assessed cash cesses for Ragaon village, tariff Sangameshwar, taluka
Ratnagiri, Prant Rajapur, 1789.

4 pages

		last time	less	remaining	increase
House Tax	32 Rupees	33½	18	15½	16½
Buffaloe Tax	9	9	3½	5½	3½
Mohoturfa Tax	16½	23½	11½	12	4½
	<u>57½</u>	<u>66½</u>	<u>33½</u>	<u>33</u>	<u>24½</u>

House Tax at present 43 Houses of which are exempted from tax:

Vedic Brahmans

- 1 Babu Bhat Halbe
- 1 Ganesh Bhat Nanle

2

Female Slaves

- 1 Soni belonging to the wife of Mahadev Halbe
- 1 Banti belonging to ----- Halbe

2

Male slaves

- 2 belonging to Babu Bhat Halbe
- 1 Balu
- 1 Manka, last time Tana

2

- 1 Baji Narya belonging to Gopal Ram Nawalangekar

8

Bhaki Honda, without children, ill, a beggar, and poor: 1 house.

Summary of exemptions

- 2 Vedic Brahmans
- 3 Male slaves
- 2 Female slaves
- 1 Beggar

8

Remaining houses 35, paying as follows:

Rupees

28 - 28 houses paying the full assessment of 1 Rupee
 2 Rupees 8 annas - 5 houses paying half assessment, 8 annas
 12 annas - the Gurav who works for the fort, 1 house paying 12
 annas
 12 annas - 1 poor single man's house.

—
 32 Rupees.

From the 43 houses recorded last time

6 exemptions were made leaving 37

paying 33 Rupees 3 annas

From these are subtracted

14 Rupees 8 annas regular revenue
 paid by 19 houses

Of these 2 are exempt from revenue

1 Chintaman Bhat Halbe

1 Krishna Bhat Bhode

- gone 'above the Ghats' (this translation is speculative).

APPENDIX II

Using Household Statistics for Estimating Rates of Population Change

The most serious problem in the use of household statistics for estimating rates of population growth, is whether the average household size can be assumed to remain constant over time. There are a number of factors likely to lead to a change in average household size from the late eighteenth to the late nineteenth centuries, at the period when population estimates have to rely heavily on data on households. Firstly, in a period of population growth, average family size is likely to rise because of the larger numbers of children born and a reduction in adult deaths, so that studies of population change based purely on household statistics would therefore underestimate rates of growth during a period of rising population.

Secondly, there could be a change in the relative proportions of joint and nuclear families in the population, either as a result of changing preferences (usually associated with the economic and social change accompanying economic development) or of an increase or decrease in the opportunities for forming joint families. In a period of population growth, for example, more male children would be likely to survive to marry and produce families. The problem of estimating the proportion of joint households in the population can be seen as particularly acute in India, where joint families (with parents, if living, several married children and their children in the same household) are regarded as the ideal arrangement. However, though little research has been done on family structure in nineteenth century India, evidence from some parts of Western India in the nineteenth century suggests that joint families were not common, the majority of households containing nuclear families. (P. M. Kolenda, 'Family patterns in Lonikand 1819-1867', *Contributions to Indian Sociology* N.S. 4, December, 1970; S. V. Avalaskar, *Nagarn, Arthik va Samajik Jivan* (Pune, 1962)).

Though there is little evidence on family structure in late eighteenth and early nineteenth century Ratnagiri, it has been calculated

(J. Goody and B. A. Harrison, 'Appendix on the Probability of Family Distributions', *Comparative Studies in Society and History* 15,1,1973) that in the demographic conditions which probably prevailed in that period (high birth rate and high infant mortality rate) the chances of a man leaving more than one male heir were less than 30%. It is also clear from the eighteenth century house tax records for Ratnagiri taluka that in a number of cases where several sons did survive their father, the brothers chose to form separate households. In 837 households in the 15 villages in Ratnagiri taluka whose house tax records provide such details, 50 households were headed by men who had been involved in a separation from a brother. Evidence from these records also shows that 26% of the households in the 15 villages which gave details on households, were almost certainly nuclear (i.e. were headed by a widow or widower, had been involved in a separation from brothers, parents or other relatives since the previous survey, or were households of slaves or debt bonded labourers). Later in the nineteenth century, the evidence of the decennial censuses gives a much clearer picture (see Table 3.3C). The average number of married women per house varied between 1.32 and 1.5 (1.92 and 2.02 if widows are included), while the average number of children per house varied between 2.2 and 2.4.

It seems probable, therefore, that the most common form of family structure, apart from the nuclear family, was the lineal joint family, with parents (or one widowed parent), one married child and their children. This was certainly a very common form of extended family structure in mid twentieth century Maharashtra: in a survey of 74 villages in the Deccan in 1947-51, only 23% of families were extended families, and half of these were lineal joint families, with father and one married son, leaving only a small percentage of families with two or more married siblings living in the same household, the form of joint family likely to produce the largest average household size (V. M. Dandekar and V. P. Pethe, 'The size and composition of rural families', *Artha Vijnana* 2, 1960). On balance, therefore, it seems unlikely that the proportion of joint families in the population changed significantly from the late eighteenth to the early twentieth century, and changing family structure is therefore unlikely to have

led to major changes in average household size between the late eighteenth and the late nineteenth centuries.

Another factor affecting household size during this period is emigration. This is obviously a serious problem in Ratnagiri because of the high rates of male emigration from the 1850s. Data on average household size from the decennial censuses (see Table 3.3C) shows that the most significant factor in accounting for variations in average household size in Ratnagiri was the number of males per household, which suggests that any comparison between populations in late eighteenth and late nineteenth century Ratnagiri based on numbers of households, and using the average household size of the latter period, would understate the population in the late eighteenth century.

Finally, the data on average household size is seriously affected by problems in defining a 'house'. In the eighteenth century house tax records, it seems likely that a 'house' was in fact a 'hearth', and not necessarily a completely separate dwelling. Under the British (BRP 1837 Range 372 Vol. 20 no. 5368 dated 19.7.1837 para 3), the house tax was levied on hearths, so that if an extended family lived in one house but had separate cooking places, they would pay one rupee for each cooking place. As there is no evidence that the British altered the system, it was probably the same in the eighteenth century. The form of the eighteenth century house tax records certainly suggests that it was hearths that were being counted, since it is common to find houses with sub-sections, each paying tax. For example, in the house tax survey of Vasi village in Sangameshwar taluka (Peshwa Daftar, Konkan Jamao Rumal 497) under the heading 'kunbi houses' occurs the following:

'3 Yesu Sangara's House

1 Himself

1 Dhonda Sewale

1 Siwa Thawali'

the two latter being presumably either relatives or tenants of Yesu Sangara. Another entry also shows an extension being built to house a married daughter, which is taxed separately:

' 2 Ramji Sewale

1 Lekma Sangara, son-in-law, from Kalbaste, left his wife at her father's house and went to work as a debt-bonded labourer, and a new section was added to the house.'

It seems probable that this definition of a 'house' as a 'hearth' was used in all official figures before the 1872 census (with the possible exception of the 1855 census of 30 villages in Ratnagiri), since no attempt was made to define a house in any other way before 1872.

In the 1872 Census enumeration was by 'enclosures', but a note was made of the number of 'houses' in each 'enclosure', and it seems probable that the enumerators kept to the traditional definition of a 'house' as a 'hearth' for this. In the 1881 Census the first serious attempt was made to define a 'house' for census purposes. As enumeration by 'enclosures' had created much confusion, it was dropped in favour of enumeration by 'houses' and a 'house' was defined for census purposes as follows:

'a house is a dwelling place of one or more families, with their dependents and servants, having a separate principal entrance from the public road, or - in certain special cases of local peculiarities - a separate entrance from an open space, not forming part of the architectural structure, communicating with the road.' (Census of India 1881 Bombay Presidency, Vol. I p. 10). The same definition was used in 1891, and the Census Report pointed out some of the implications (Census of India 1891 Vol. VII Part I p. 15): for example, houses which could normally be considered as separated, which opened onto a common courtyard with one outer gate, were all counted as one house.

A further complication is created by inconsistencies in counting unoccupied houses. In the house tax returns, no record was kept of unoccupied houses, and they were probably not counted therefore in censuses before 1872. From the 1881 Census, a count was made of both occupied and unoccupied houses, which were recorded separately, and I have used the statistics for occupied houses only after that period. There is no indication, however, whether or not unoccupied houses were included in the statistics on houses in the 1872 Census. It seems possible that they were, since there is an unexplained rise in average household size in Ratnagiri between 1872 and 1881, at a time when the population in the district was actually falling (Table 3.1).

In view of all these complications, it is not easy to interpret the data on household size in Ratnagiri. The rise in average household size from 1820 to 1846 and 1855 does seem to correspond well with the probable rise in population in the late 1840s and 1850s. On the other hand, the drop in average household size in 1872 could be explained by the counting of unoccupied houses into the total. One would expect, however, to find higher average household size in 1891 than in 1881 or 1901. Though the 1901 figures do show a drop commensurate with the drop in population, the 1881 figures do not appear to reflect the drop in population and agrarian crisis of the late 1870s. On balance, therefore, it seems that the data on the number of houses in the district can only be used to estimate population growth or investigate family structure with the greatest caution.

APPENDIX IIIA

Agricultural Statistics of Ratnagiri district

There are six main sources of agricultural statistics for Ratnagiri district:

1) The eighteenth century revenue records.

Land revenue records of the *Peshwa* period exist for most *talukas* in the district, and were used by British officials to make general comparisons between cultivation in the eighteenth and the nineteenth centuries. I have studied in detail the records of 34 villages in *tarf Sangameshwar*, in *Sangameshwar taluka*, which were prepared by *Maratha* officials when making the land revenue survey of 1789; these are to be found in Pune Archive, *Peshwa Daftar Konkan Jamao Rimal 497*. The documents consist firstly of the *pahani jirayat* or 'arable land survey', which summarises the results of the village survey, including details on the area under cultivation and fallow in 1789; it also gives information on the length of fallows, the uses of uncultivated land, the area under each crop, and the assessment payable by the village. Besides the *pahani jirayat*, some villages also have a *pahani bagayat* listing the number of taxable fruit trees in the village (coconuts and betelnuts) and a few villages also have a *teriz* either of *jirayat* or *bagayat* land, which lists the holdings of arable or of fruit trees of the main cultivators in the village. The full details of each person's holdings, of which the other documents are summaries, are contained in the *pahani kharda* for each village. The size, complexity and unclear handwriting of these documents deterred me from using them.

The wealth of detail in these tax records suggests that considerable care was taken in drawing them up. However, doubts were cast on the accuracy of the eighteenth century survey by several officials under the British. For example, S. P. Luxumillal suggested in 1870 that there must

have been concealment of rice land at the eighteenth century survey, since otherwise the farmers could not have paid the heavy assessment: MSA RD 1870 Vol. 40/405 letter no. 1 dated 11.2. 1870 para. 23. The most detailed criticisms came from Captain Dowell. He had two main criticisms of the eighteenth century survey:

i) Villages of which *taluka* officials (the *desai* and *deshpande*) were *khots* were under-assessed at the eighteenth century survey. He demonstrated that of the 270 *khoti* villages which showed an increase in assessment between the *Peshwa's* survey in 1789 and his survey in 1827, the 84 villages which belonged to a *desai* or a *deshpande* showed a larger increase on average than those belonging to other *khots*, and he therefore suggested that they had been deliberately underassessed in 1789: BRP 1832 Range 370 Vol. 63 no. 2041 Table F Part 3. However, an examination of the data on 32 villages in Sangameshwar *taluka* for which I have eighteenth century land revenue records, suggests that any underassessment which took place in the eighteenth century survey did not involve underestimating the area under cultivation. Eleven of the villages in *tarf* Sangameshwar for which I have detailed records, belonged to *khots* who were district officials (e.g. *sardesai* or *sarmakadam*). The increase in total cultivation in these villages between 1789 and 1827 was 41%, compared to an increase of 39% in all 32 villages, which is hardly significant. It seems probable, therefore, that if there was any under-assessment of the villages of district officers in the eighteenth century survey, it was achieved by putting too low a classification on the land (classing 1st class rice land as 2nd class rice land etc.) rather than by actually under-measuring the area under cultivation, and therefore the agricultural statistics are not seriously affected.

ii) The uncultivated hill land was not accurately measured. Captain Dowell maintained that the eighteenth century survey did not measure properly the land which was completely uncultivated, only measuring current fallows and possibly land set aside for grazing, and *rab* manure: BRP Range 370 Vol. 22 no. 232 dated 1.11. 1829 para. 45. This seems to be confirmed by a comparison of the total area of the village as given

by the eighteenth century survey with that of the Survey Department in 1885, which shows big discrepancies in the area of hill land. However, this does not affect the main body of the survey, and the problems it poses are easily surmountable.

2) Captain Dowell's survey made in 1827-29

This was an experimental survey of Ratnagiri and Sangameshwar *talukas*, originally intended to lead to a revision of the assessment, though this was never put into effect. *Tarf Kele* and *tarf Kuriat Newre* were measured in great detail under close supervision by Captain Dowell (see for example BRP 1827 Range 369 Vol. 45 no. 55B, which gives a specimen of a field book or *pahani kharda* for the village of Shirgaon). However, the rest of the area was surveyed under contract, and may therefore have been more liable to error, since payment was by results, which encouraged over hasty measuring: BRP Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 82. However, Captain Dowell did visit most of the villages in the *talukas* in 1830 and appears to have felt that the results were broadly correct, though he did doubt the accuracy of some aspects of the survey, feeling that some of the cultivators left some of their land uncultivated in the survey year to avoid the assessment. He estimated that 5% of the hill land and 15% of the rice land was left uncultivated for this reason. (BRP Range 370 Vol. 22 no. 232 dated 1.11.1829 para. 51). It seems unlikely that in a subsistence economy the cultivators could have risked leaving much more uncultivated, but there is certainly a surprisingly large area of fallow rice land in both the 1789 and 1827 surveys. This is a surmountable problem, however, since it is likely to have remained a constant factor between 1789 and 1827; moreover, as the fallow rice land is noted in the records, an analysis can be made on the basis of the cultivable rice land rather than of the rice land actually in cultivation. Later officials also criticised Captain Dowell's survey (MSA RD 1851 Vol. 225 letter no. 678 of 1849, undated, para. 9, criticised his measurement of unarable and waste land). Though the area of waste and uncultivable land in the villages in his survey is

clearly inaccurate, as in the eighteenth century survey, the general consistency of the data on area under cultivation between the eighteenth century survey and Captain Dowell's survey, suggests that the essential data is broadly accurate.

Unfortunately, although Captain Dowell prepared papers on every village in the *talukas* on the same principles as those of the eighteenth century surveys, these detailed village papers have disappeared. Data on the area under cultivation and fallow of each type of land (rice and hill or dry crop land) and the assessment payable, is given for most villages in the Notes written by Dowell in 1830, although unfortunately one volume is missing and so the whole area is not covered (*Selections* MS no. 197 (Bombay, 1912)). However, the total area under cultivation in each village in the *talukas*, as found in Dowell's survey of 1827-9 and in the 1789 *Peshwa's* survey, can be found in the Revenue Proceedings (though types of cultivation are not distinguished here), and also a summary of the types of land under cultivation in 277 of the villages in the *talukas* in 1789 and 1827 (BRP Range 370 Vol. 63 no. 2063-2041).

3) Estimates of area under cultivation made before the British survey and settlement

In spite of protests that in the absence of a survey the statistics were highly inaccurate, (BRP 1843 Range 374 Vol. 20 no. 4786 dated 28.2.1843 para. 59) from 1843/4 the Collectors of Ratnagiri were required by the government to submit statements of area under cultivation in the district in their annual Revenue Reports (e.g. BRP 1846 Range 375 Vol. 22 no. 3282 dated 30.4.1845 Revenue Report for 1843/4 Statement G). These statements gave the area under cultivation bearing assessment, under the headings 'irrigated', 'dry crop' and 'rice' for each *taluka*. However, the inconsistencies and irregular fluctuations of these statistics confirm the Collectors' opinion that they are too unreliable to be of any great value.

4) The British survey and settlement

An attempt to introduce a survey and settlement on the lines of the Deccan Settlement into Ratnagiri district was made under Sir George Wingate's supervision from 1851. This survey and settlement was only put into effect in three villages, however, and the whole project was abandoned in 1857 because of difficulties over the *khoti* tenure.

Another attempt was made to introduce a new survey and settlement into the district in 1866, when the Survey and Settlement Officer, Colonel Francis, made proposals for a settlement of *tarf* Bankot in Dapoli *taluka*, which was followed by proposals for Khed (settled in 1867/8), Ratnagiri (*tarf* Sytowde settled in 1867/8 and the rest in 1869/70), and Chiplun *taluka* (settled in 1870/3): *Selections* MS no. 134 (Bombay 1873) pp. 101-4. After a storm of protest from the *khots* over the changes in their tenure, the survey was suspended until 1880, when the Khoti Settlement Act solved the tenure question. The remaining *talukas* were then surveyed and settled: Sangameshwar in 1885, Rajapur in 1888, Deogad in 1892, and Malvan (including Vengurla, which was later made a separate *taluka*) in 1888.

The data on land use and land holding obtained by the survey was presented in a summarised form in the Settlement Reports of each *taluka*, which include also details of land use and assessment for each village in the *taluka*. These reports exclude data on *inam* villages and *inam* land in government villages, not a serious problem as *inam* was not extensive in Ratnagiri district; they also exclude data on 'unoccupied' unassessed land, of which there was also little in the district. Information from the survey is also available in the village records held in *taluka* offices and in the District Record Office, though they are not available for every village, as some are lost or in too bad a condition to be readable. These village records give the names of survey occupants, and details of their holdings (including *inam* land and unassessed land here). They also provide details of their assessment and tenure, in documents known as the *jungle kharda* and the *botkut*, and field maps and other survey data in the *pakka sud* and *kaccha sud*. Information on land

use in these survey documents consists of a division of land into *kharif* (which in the Konkan means 'rice land': *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. I Appendix Glossary.), *rabi*, (wet land which could be cropped without irrigation outside the monsoon) *warkas* (dry crop land,) and *bagayet* (irrigated garden land).

However, there are considerable limitations on the use of this material for analysis of land use and of the area under cultivation, because the data given in the survey records is for 'occupied land paying assessment'. This means, firstly, that fallow land which was part of the normal cycle of cultivation would be included under 'occupied land', since it was needed by the cultivators in the near future. Furthermore, much land which was never cultivated at all was also included as 'occupied land'. This was partly a consequence of the tenure system, since in *khoti* villages the *khots* claimed to be the 'owners' of the whole of their villages, and if they did not take up all the available land as 'survey occupants' they would loose their claim to part of the village and weaken their position. But even in non-*khoti* villages, there was pressure on cultivators to take up and pay revenue for land which they never cultivated, because otherwise they might loose their rights to collect *rab* manure and graze their cattle on the land (see *Report of the Bombay Forest Commission* (Bombay, 1887) Vol. I p. 81 on this problem in Thana and Kolaba). This does not present a severe problem in rice, garden and *rabi* land, since it is unlikely that by the late nineteenth century much of this was left uncultivated. However, survey data on the *warkas* or 'dry crop' land cannot be used reliably to show the actual extent of cultivation, though some rough estimates can be produced of the proportion likely to have been fallowed and cultivated in particular areas.

There are, therefore, some limitations on the use of the data from the Original Survey and Settlement. A more serious problem, however, is created by the nature of the Revision Surveys made 30 years later, which makes it impossible to use data from the Revision Surveys to analyse the increase in cultivation from the Original Survey. As has

already been explained, the Original Survey did not measure the extent of cultivation in dry crop land, and virtually all the *warkas* land in the village, cultivated, cultivable and uncultivable, was included under the heading of 'occupied *warkas*'; therefore the Revision Settlement rarely showed any increase in *warkas* cultivation. However, the Revision Surveys also failed to record any increases in the area of rice and garden land from the Original Survey. It appears that land categories were fixed in perpetuity at the Original Survey, and any change of land use from the lower assessed *warkas* or *rabi* land into rice or garden land between the Original and the Revision Settlement, was not recorded in the Revision Settlement on the grounds that it would be a tax on improvements. Therefore the Original and Revision Surveys record exactly the same areas of rice, garden, *rabi* and *warkas* land - only the rate of assessment on the village as a whole was changed if it was felt that there had been a widespread improvement in cultivation: R. Gordan, *The Bombay Survey and Settlement Manual* (Bombay, 1917) Vol. I pp. 179-81 and Vol. II p. 361)

5. The Director of Agriculture's Statistics

From 1882/3 statistics on the area under different crops, the area of fallow land of various types, the amount of agricultural stock, the area under irrigation and other agricultural statistics were published in annual reports by the Director of Agriculture for the districts of Bombay Presidency. These statistics were collected by village officials, and depended for their accuracy on the nature of the village establishment. In most villages in the Deccan, and in some parts of the Gujerat and Konkan, there were paid accountants who were responsible to the government for keeping accurate accounts, and data from such villages can be considered reliable. In the case of *inam* villages, though, and *zamindari* villages under the control of *khots* or *talukdars*, there was little check on the accuracy of these statistics, and no obligation on the part of the holders to provide them. Since most of Ratnagiri district was in the hands of the *khots*, only the statistics

from a relatively small area could be considered reliable. The Director of Agriculture's annual reports before 1886/7 do not contain data on Ratnagiri district on the grounds that no reliable statistics were forthcoming. From 1886/7, the statistics on Ratnagiri were separated into *ryotwari* (i.e. non-*khoti*), 'other government' (i.e. *khoti*) and *inam* to identify the better statistics. From 1892/3, however, only the data considered really reliable, mainly from *ryotwari* villages, was given, which in 1892/3 was only 177½ villages out of 1392½.

The data from the Department of Agriculture cannot, therefore, be used to provide absolute figures on the areas under cultivation or the agricultural output of Ratnagiri district. It can, however, provide an indication of the relative areas under different crops, the number of working cattle per arable acre, and the proportion of fallow land over the period from 1886/7 to 1920/1 and beyond. However, the small number of village providing statistics may have biased the results to some extent, since the *ryotwari* villages which provided most of the data were mainly near the coast and in the south of the district, and tended to have a higher proportion of rice and garden land than *khoti* villages.

6) Data on yield per acre

Scattered through the revenue records, in the period before and during the Survey Settlement, are detailed estimates of the output per acre of different crops in Ratnagiri district, usually in connection with some controversy over the rate of assessment (e.g. BRP Range 374 Vol. 44 no. 7297 dated 15.2.1844, and MSA RD 1873 Vol. 57/305 letter no. 1193 of 1873 p. 421). Most of these estimates were not based on actual experiments, and appear to have been based on a local consensus of what the yield of various crops might be. Some actual crop experiments were carried out, but they were not widespread or representative enough to provide a scientific assessment of crop yields (e.g. Pune Archive, Ratnagiri Survey, Rumal 14/4, letter no. 1465 dated 15.9.1853 para. 3-6).

More scientific experiments were introduced by the Department of Agriculture (printed from 1879/80 as 'Crop Experiments, Bombay

Presidency') and these may have been used as the basis for establishing the 'normal' yield of each crop, which was used as the basis for calculating the actual yield in the Season and Crop Reports, produced by the Department of Agriculture, which appear annually from 1903/4. The use of these crop experiments as a basis for estimating yields per acre for the whole district were criticised at the time (e.g. 'Crop Experiments, Bombay Presidency' 1879-81 letter no. 2187 dated 18.7.1882 p. 1 para. 6: the Revenue Commissioner for the Southern Division, A. Crawford, who had previously been Collector of Ratnagiri, expressed his doubts over the value of crop experiments conducted in the 1870s in Ratnagiri). For a discussion of the value of the data on yield per acre as a whole, see Chapter 5 Section II.

APPENDIX IIIBA translation of the *pahani jirayet* of Dingni village

(Pune Archive, Peshwa Daftar Konkan Jamao Rumal 497)

(Note: 1 chahur = 120 bighas; 1 bigha = 20 pands)

'Survey and assessment of the unirrigated land of Dingni village taraf
Sangameshwar taluka Ratnagiri Prant Rajapur 1789

Land surveyed in chahurs: 28 chahurs 90 bighas 17½ pands in total

Details3ch 10½p cultivated in the above year2ch 116b 2¼p government land

110b 11½p permanently cultivated land:

93b 15p cultivated rice land

12p cultivated dry crop land

16b 4½p cultivated with wazan crops

110b 11½p

1ch 115b 10½p dry crop land

steep hill

level hill

1ch 115b 10½p

of which

1ch 115b 4½p cultivated with grain,

6½p cultivated with wazan

2ch 116b 2¼p

14b 8¼p Inam permanently cultivated rice land

3ch 10½p

13ch 93b 4½p fallow cultivable land

13ch 93b 2p government land

6b ½p permanently cultivated land

2½p 1st class

2b 4½p 2nd class

1b 17½p 3rd class

1b 15½p 4th class

6b ½p

13ch 87b 1½p dry crop land

11ch 24b 14p steep hilly scrub land

1ch 113b 18½p cultivated last year

2ch 5b 5½p needing 2 or 3 years' fallow

3ch 88b 12½p needing 4 or 5 years' fallow

1ch 56b 14½p due to be cultivated next year

1ch 21b 8½p land for 'rab' manure

98b 15p rocky land

11ch 24b 14½p

1ch 108b 4½p level hill land

74b 2½p steep hilly grazing for cattle

13ch 87b 1½p

13ch 93b 2p

2½p inam permanently cultivated land 4th class

13ch 93b 4½p

11ch 105b 8½p fallow uncultivable government land

18b 10p plantations

19b 16½p gardens and fruit trees round houses

1b 4½p jack fruit trees

7b 2½p bushy ground for 'rab' manure

7ch 75b 17½p rocky pasture for grazing cattle

3ch 90b 9p rock

11ch 105b 8½p

11b 14½p deductions in the survey of government cultivated land

5b 2½p stony land and trees

6b 12p uncultivable land

11b 14½p

28ch 90b 17½p

Grain assessment on above year's cultivation

	Grain assessment				Total assessment				Reduction for bad land		
	khandi	maund	payli	ser	khandi	maund	payli	ser	maund	payli	ser
Rice	46k	12m	10p	1s	46k	11m	2p	3s	1m	7p	2s
Magli	12k	1m	2p	1s	12k	-	7p	-	-	7p	1s
Vari	4k	12m	9p	2½s	4k	11m	5p	2s	1m	4p	½s
Harik	4k	11m	-	½s	4k	10m	1p	½s	-	11p	1s
Niger seed	-	12m	10p	1½s	-	10m	5p	3½s	2m	4p	2s
Udid	-	2m	7p	2½s	-	2m	7p	2½s	-	-	-
Kulith	-	4m	9p	-	-	4m	-	-	-	9p	-
Varn	1k	2m	11p	½s	1k	2m	11p	½s	-	-	-
Chawliya	-	-	11p	2½s	-	-	11p	2½s	-	-	-

Government land, grain

	Present assessment				Total assessment				Reduction for bad land		
Rice	40k	6m	8p	2½s	40k	5m	1p	¾s	1m	7p	2s
Nagli	12k	1m	2p	1¼s	12k	-	7p	¾s	1m	7p	1s
Vari	4k	12m	9p	2½s	4k	11m	5p	2s	1m	4p	¾s
Harik	4k	11m	-	1¼s	4k	10m	1p	¾s	-	11p	1s
Niger seed-	12m	10p	1¼s	-	10m	5p	3¼s	2m	4p	2s	-
Udid	-	2m	7p	2½s	-	2m	7p	2½s	-	-	-
Kulith	-	4m	9p	-	-	4m	-	-	-	9p	-
Varn	-	17m	8p	3s	-	17m	8p	3s	-	-	-
Chawlya	-	-	11p	2½s	-	-	11p	2½s	-	-	-

Assessment on government land

	Present grain assessment				Monsoon crop				Hot season crop		
Rice	40k	5m	1p	¾s	40k	5m	1p	¾s	-	-	-
Nagli	12k	-	7p	-	12k	-	7p	-	-	-	-
Vari	4k	11m	5p	2s	4k	11m	5p	2s	-	-	-
Harik	4k	10m	1p	¾s	4k	10m	1p	¾s	-	-	-
Niger seed-	10m	5p	3s	-	10m	5p	3s	-	-	-	-
Udid	-	2m	7p	2½s	-	2m	7p	2½s	-	-	-
Kulith	-	4m	-	-	-	4m	-	-	-	-	-
Varn	-	17m	8p	3s	-	-	-	-	17m	8p	3s
Chawlya	-	-	11p	2½s	-	-	-	-	-	11p	2½s
	63k	3m	-	3s	62k	4m	4p	1¼s	18m	8p	1¼s

Survey of permanently cultivated land

Present land Deductions Remainder Assessment on this

Chahur bigha pand

khandi maund payli ser

Rice

1st sort	-	22b 16½p	-	2b 19p	-	19b 17½p	12k	8m	7p	½s
2nd sort	-	42b 13½p	-	5b 10½p	-	37b 3p	18k	11m	6p	-
3rd sort	-	16b 10½p	-	2b 2½p	-	14b 8½p	5k	15m	5p	-
4th sort	-	<u>11b 14½p</u>	-	<u>1b 9½p</u>	-	<u>10b 4½p</u>	<u>3k</u>	<u>3m</u>	<u>11p</u>	<u>3½s</u>
	-	93b 14½p	-	12b 1p	-	81b 14p	39k	19m	5p	3½s

Dry crop

Transplanted

nagli	-	-	1½p	-	-	½p	-	-	1½p	-	-	3p	1½s
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Transplanted

vari	-	-	8½p	-	-	1½p	-	-	6½p	-	1m	-	½s
Udid	-	-	<u>1½p</u>	-	-	<u>½p</u>	-	-	<u>1½p</u>	-	-	-	<u>3½s</u>
	-	-	<u>12p</u>	-	-	<u>2½p</u>	-	-	<u>9½p</u>	-	<u>1m</u>	<u>4p</u>	<u>2s</u>
	-	94b	7p	-	12b	1p	-	82b	3½p	40k	-	10p	1½s

Survey of unirrigated hill land

Present land		Deductions		Remainder		Assessment on this			
Chahur bigha pand						khandi maund payli ser			
Hill rice -	4b 9½p	- 1b 9½p	- 2b 19½p	-	5m 7p 1s				
Nagli in									
steep hill-	96b 5½p	- 32b 1p	- 64b 4½p	9k 12m 8p 3s					
Nagli									
tranplanted-	15b 17p	- 3b 3¼p	- 12b 13½p	2k 7m 6p 3½s					
	- 112b 2½p	- 35b 4½p	- 76b 18½p	12k 5m 10p 3½s					
Varī in									
steep hill-	23b 14½p	- 7b 17½p	- 15b 16½p	1k 19m 7p ½s					
Varī									
tranplanted	- 18b 15½p	- 4b 16½p	- 13b 19p	2k 1m 10p 1½s					
Sawa	- 10b 15p	- 3b 11¼p	- 7b 3½p	- 8m 11p ½s					
	- 53b 5p	- 16b 5½p	- 36b 19½p	4k 10m 5p ½s					
Harik	- 44b 19½p	- 14b 19½p	- 30b ½p	4k 10m 1p ½s					
Niger seed-	12b 10½p	- 4b 2½p	- 8b 7½p	- 10m 5p 3½s					
Udid	- 3b 1½p	- 1b ½p	- 2b 1p	- 2m 6p 3s					
Kulīth	- 4b 15½p	- 1b 11½p	- 3b 4p	- 4m - -					
	1c 115b 4½p	- 74b 13½p	1 40b 11p	22k 3m 5p 3½s					

Summary of monsoon crop assessment

	Present land	Deductions	Remainder	Assessment on this
	Chahur bigha pand			khandi maund payli ser
Permanently				
cultivated-	94b 7p	-12b 3½p	- 82b 3½p	40k - 10p 1½s
Dry crop	<u>1c 115b 4½p</u>	<u>-74b 13½p</u>	<u>1c 40b 11p</u>	<u>22k 3m 5p 3½s</u>
	2c 89b 11½p	-86b 17p	2c 2b 4½p	62k 4m 4p 1½s

Summary of 'hot weather' crop assessment

	Present land	Deductions	Remainder	Assessment on this
Varn	- 17b 14½p	- 3b 10½p	- 14b 4p	- 17m 8p 3s
Chawtha	<u>- - 19½p</u>	<u>- - 3½p</u>	<u>- - 15½p</u>	<u>- - 11p 2½s</u>
	- 18b 13½p	- 3b 14p	- 14b 19½p	- 18m 8p 1½s

.....

The rest of the *pahani jirayet* is concerned purely with the assessment

a) *wazan* crops were those assessed in weight as opposed to the usual volume measures, most importantly sugar, hemp and various spices and condiments. These crops were commonly grown in *rabi* land .

b) a *khandi* = 20 *maunds*; the assessment was calculated in *maunds* of 12 *paylis*, as opposed to *maunds* of 16 *paylis* commonly used in Ratnagiri in the eighteenth and nineteenth century by peasants paying rent and tax. These are all capacity measures, not the *maund* in weight used for official purposes by the British in the nineteenth century.

APPENDIX IV

(Pune Archive, Ratnagiri Survey, Rumal 14/4, no. 357 of 1852.)

'Translation of a mortgage bond relating to the claims of the khots in Ratnagiri

'to creditor Ramchundra Apajee Shewde Khot of the village of Raee Turf Foongus from Debtors Sudasew Ramchunder and Widow Saweetree Baee relict of Abajee Ramchunder Moolye Khots of the village of Funsoole Turf Kele Mazgaon Taluka Ratnagiri.

..... 'Thus a sum of Rupees 387 is due to you for which we agree to pay interest at a rate of one rupee per mensem as security for this we hereby pledge our own shares which you already hold' (N.B. This is the second mortgage).....'you are to hold as now the 'Wuttunee Khotee' of our two shares of the Division land cultivated and uncultivated, single and double crop, taxed and untaxed, all the land gardens and yards houses and buildings all of them Water courses and water Rivers and Nullas...trees....tenants...labour...tenants' dues etc. all is pledged to you, you therefore paying the Government tax according to the custom of the country are to manage the Estates whether at a profit or a loss....The rice lands we cultivate are to be rented according to agreement made between us in the case of 'wurkus' we will pay 4 paylees in every maund of produce as estimated by you while the crop is standing we will pay our rent including that agreed upon the rice in kind and take receipts year by year to this and should be fail to pay our rent in kind we will pay our rent including that agreed upon the rice in kind and take receipts year by year to this end should we fail to pay our rent in kind we will pay cash and take your acknowledgement in August according to the prices of that month thus we have agree for our cultivation we will in no way influence the cultivators against you nor cultivate by their aid nor in any way interfere in your management.....Land belonging to (Survaje) or cultivated by the tenant we will not ourselves take and

cultivate nor will we appropriate the Grass and branches for manure should we however cultivate either their lands or by their aid we will without question pay you whatever the Kool would have had to pay any disputes regarding the watan or village boundary we and our heirs and on my/Savitree bae/ part my Husband's brother will settle as they occur...any repairs you may make to the Bunds of the Rice land or any bunds you may make for the formation of new rice land shall be paid for with interest at the above rate.....we will not and do not claim to make away with the Junglee trees you shall cult them down as you may require for your private purposes etc. We will pay and take receipts for the Bagayeet the rent of which is to be agree to at the Government rate'.'

Table 1.1 Increase and Decrease in Households Since the Previous
House Tax Survey in Four Villages in Sangameshwar Taluka

Village	Households c. 1780	New households by		Households lost by		Households in 1790
		Immigration	Separation	Emigration	Death	
Ragaon	43	12	8	20	0	43
Dingni	93	6	11	0	0	110
	<u>Households c. 1786</u>					<u>Households in 1796</u>
Wandri	76	6	5	13	7	67
Ujgaon	40	4	6	8	11	31

Source Pune Archive, Peshwa Daftar, Konkan Jamao, Ruma1 496 and 497

Table 1.2 Emigration in Bombay Presidency 1891

District	Migration <u>Rate</u>^a	Sex <u>Ratio</u>^b	Acres per head of <u>population</u>^c	Main destination <u>of migrants</u>
Ahmedabad	10.5%	70	1.43	Katthiawar
Kaira	6.8%	78	0.85	Ahmedabad
Panch				
Mahals	6.8%	64	1.03	Rewa Kantha
Broach	4.5%	76	1.13	Rewa Kantha
Surat	12.1%	152	0.73	Bombay
Thana	5.7%	111	0.64	Jawhar
Kolaba	10.0%	118	0.67	Bombay
Ratnagiri	18.7%	160	0.55	Bombay
Kanara	1.8%	93	0.54	Dharwar
Khandesh	1.7%	95	2.13	Nasik
Nasik	7.7%	97	2.28	Khandesh
Ahmednagar	7.1%	88	2.97	Poona
Poona	12.4%	98	1.95	Bombay
Sholapur	9.8%	69	2.78	S.M.Jagirs
Satara	15.2%	99	1.50	Satara Agency
Belgaum	12.5%	73	1.75	S.M. Jagirs
Dharwar	5.8%	81	2.05	S.M.Jagirs
Bijapur	6.6%	75	3.47	S.M.Jagirs
Cutch	2.7%	96	NA	Bombay
Katthiawar	0.5%	59	NA	Ahmedabad
Kolhapur	37.9%	115	NA	S.M.Jagirs

Footnote for Table 1.2

a) Born in district living outside (in Bombay Presidency) X $\frac{100}{1}$
Total born in district.

b) Sex Ratio of Migrants: Male/Female.

c) Acres = Gross area cropped (GCA).

Source Census of India 1891 Vol VII Part II Table XI; Annual Report of the Department of Land Records and Agriculture, Bombay 1889-91.

Table 1.3 Emigration from Ratnagiri District 1864-1911

<u>Date</u>	<u>Population of Ratnagiri</u>			<u>Born in Ratnagiri living elsewhere in Bombay Presidency^b</u>			<u>Rate of migration^c</u>	<u>Born in Ratnagiri living in Bombay city</u>		
	Male	Female	Sex Ratio ^a	Male	Female	Sex Ratio		Male	Female	Sex Ratio
1846	327,436	298,057	117							
1851	350,151	315,087	111							
1864								(111,478)		
1872	491,116	528,020	93					37,988	18,891	201
1881	473,053	524,037	90	107,908	66,035	163	18%	79,249	46,941	169
1891	513,616	592,310	87	152,952	95,196	161	19%	108,828	53,758	202
1901	547,525	620,402	88	132,109	82,411	160	16%	95,638	50,197	190
1911	553,382	650,256	85	181,913	107,108	170	20%	143,498	72,562	198
1921	525,341	628,903	84	190,702	112,388	170	21%	154,460	81,096	190

Footnote 1 Table 1.3

a) Male/Female

b) Includes those living in Bombay city

c)
$$\frac{\text{Born in Ratnagiri living elsewhere in Bombay Presidency}}{\text{Total born in Ratnagiri}} \times \frac{100}{1}$$
Source

Census of Bombay 1872 Vol II Census of India 1881 Bombay Presidency Vol. II Tables X and XI, Census of India 1891 Vol. VIII Part II Table XI, Census of India 1901 Vol. IXA Part II Table XI, Census of India 1911 Vol. VII Part II Table XI and Census of India 1921 Vol VIII Part II Table XI. Also Pune Archive, Revenue Commissioner Central Division Records Misc. Vol. 137 and 245.

**Table 1.4 Population Structure of the Talukas of Ratnagiri District
1901 and 1921**

<u>Taluka</u>	<u>Sex Ratio</u>		<u>Average household size</u>		<u>Excess of married women over married men as % of all women</u>
	1901	1921	1901	1921	1901
Mandangad	86	83	4.6	4.3	20%
Khed	88.5	85	4.8	4.5	18%
Dapoli	88	83	5.1	4.4	19%
Chiplun	87	85	4.9	4.7	19%
Guhagar	83	78	5.1	4.5	26%
Sangameshwar	87	83	5.1	4.8	25%
Ratnagiri	87	81	5.7	4.8	23%
Rajapur	89	84	5.4	5.2	21%
Deogad	91	85	5.6	4.8	17%
Malvan	89	83	6.6	4.9	16%
Vengurla	97	94	6.1	5.2	6%
Whole District	88	84	5.4	4.75	20%

Source

Census of India 1901 Vol. IXA Part II Table VIII and Census of India 1921 Vol. VIII Part II Provincial Table 1

Table 1.5 Born in Ratnagiri living in Bombay 1911

Caste/religion group (main occupation in Ratnagiri)	% of caste in Bombay	Rank	Caste members as % of all born in Ratnagiri living in Bombay	Rank	Sex ratio of caste in Bombay (male/female)	Rank	Dependency ratio (Dependents/ workers)	Rank	Women workers as % of all females over 15	Rank	% Mill workers to total workers	Rank	Sex Ratio of mill workers (male/ female)	Main Occupation of castes in Bombay
Charbhar (Leather worker)	24%	1	2%	7	129	16	52	9	58%	1	69%	1	168	Mill-hand
Bhandari (Coconut grower/ boatman)	21%	2	10%	2	192	6	59	8	28%	8	28%	8	306	Mill-hand
Koli (Fisherman)	21%	2	0.5%	13	494	2	25	16	30%	10	9%	12	750	Fishermen
Vani (Merchant)	20%	4	4%	6	179	11	66	7	34%	8	33%	5	354	Mill-hand/ Shop-keeper
Parit (Washerman)	18%	5	0.1%	16	135	15	46	11	56%	3	31%	6	312	Artisan
Maratha/Kurbi (Cultivator)	17%	6	56%	1	199	5	44	12	48%	5	53%	4	332	Mill-hand
Shimpi (Tailor)	16%	7	0.2%	15	125	17	100	1	21%	13	6%	13	700	Artisan
Sonar (Goldsmith)	16%	7	1%	8	172	12	86	3	18%	14	3%	15	141	Artisan
Brahman (Landlord)	13%	9	4.5%	5	189	7	99	2	8%	17	1%	16	1,260	Clerk
Muslim (Cultivator/ fisherman)	12%	10	5%	3	385	3	37	15	12%	16	5%	14	1,676	Artisan and Shopkeeper
Lohar (Smith)	12%	10	0.1%	16	208	4	70	5	29%	11	30%	7	106	Artisan
Teli (Oil presser)	11%	12	1%	9	181	10	51	10	48%	5	54%	3	346	Mill-hand
Mahar (Untouchable/ scavenger)	10%	13	5%	3	153	14	44	12	57%	2	19%	10	226	Labourer
Gavli (Milkman)	10%	13	0.7%	11	187	8	41	14	53%	4	59%	2	305	Mill-hand
Mhavi (Barber)	9%	15	0.5%	12	185	9	74	4	27%	12	21%	9	174	Artisan
Sutar (Carpenter)	9%	15	0.8%	10	171	13	70	5	15%	15	13%	11	206	Artisan
Kharva (Fisherman)	8%	17	0.3%	14	1068	1	7	17	42%	7	1%	16	400	Fisherman

Source Census of India 1911 Vol. VII Part II Table XI Part III

Table 1.6 **Distribution of Castes/Religious Groups**
in Ratnagiri 1846-1921

Castes etc Caste etc as % of total population of Ratnagiri in:

	1846	1851	1872	1881	1891	1901	1911
Kunbi/ Maratha			47.8%	48.8%	48.5%	49.0%	49.8%
Kunbi	38.4%	34.1%	27.8%	NA	27.1%	24.4%	25.8%
Maratha	NA	NA	19.9%	NA	21.5%	24.6%	24.0%
Brahman	9.9%	9.2%	6.4%	6.8%	6.1%	5.8%	5.6%
Mahar	8.2%	8.1%	8.4%	8.4%	8.6%	7.7%	7.9%
Muslim	7.3%	6.9%	7.3%	7.1%	7.0%	7.1%	6.6%
Bhandari	NA	8.5%	6.9%	6.8%	6.8%	7.3%	7.2%
Vani	NA	2.9%	3.2%	NA	NA	3.2%	2.7%
Gavli	NA	1.3%	1.4%	NA	1.4%	1.3%	1.3%
Teli	1.6%	1.6%	1.7%	1.7%	1.7%	1.7%	1.7%
Gurav	1.5%	NA	1.8%	NA	NA	1.0%	1.6%
Sonar	1.4%	1.5%	1.2%	1.2%	1.2%	1.3%	1.3%
Kumbhar	1.0%	1.1%	1.1%	1.1%	1.1%	1.2%	1.2%
Chambhar	0.9%	1.0%	1.0%	1.1%	1.1%	1.0%	1.0%
Nhavi	0.8%	0.9%	0.8%	0.9%	0.9%	0.9%	0.9%
Parit	0.4%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%
Kansar	0.3%	0.3%	0.3%	NA	0.3%	0.2%	NA
Jangam	0.2%	0.2%	NA	0.2%	0.1%	0.2%	NA
Dhangar	0.2%	0.1%	0.4%	0.5%	0.5%	0.6%	0.6%
Shimpi	0.2%	0.2%	0.2%	0.2%	0.1%	0.2%	0.2%
Sutar	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	1.7%
Prabhu	0.1%	0.1%	0.1%	NA	0.1%	0.1%	0
Tambat	0.1%	0.1%	0.1%	NA	0.1%	0.1%	NA
Lohar	0.1%	0.2%	0.2%	0.2%	0.2%	0.1%	0.2%

Source Pune Archive, Revenue Commissioner Central Division Records
 Misc Vol 245 1851, and Misc. Vol 137, 1846; Gazetteer (1880);
 Census of India 1881 Bombay Vol II Table VIII; Census of India 1891 Vol
 VIII Part II Table XVI; COI 1901 Vol IXA Part 2 Table COI 1911 Vol
 VIII Part II Table XIII COI 1921 Vol VIII Part II Table XIII Pt 1

Table 1.7 Population of the talukas of Ratnagiri District 1891-1911

Taluka	1	2	3	4	5	6	7	8
	Acres	Population			Population		Population	
	per head	1891	1901	%	1911	%	1921	%
	1901			change		change		change
				Co12-3		Co13-5		Co15-7
Mandangad	2.06	46,789	44,985	-3.8%	45,420	0.96%	41,759	-8.0%
Dapoli	2.06	108,202	109,643	1.3%	114,326	4.2%	105,339	-7.8%
Khed	2.62	100,550	95,594	-4.9%	101,529	6.2%	945,494	-5.9%
Chiplun	2.25	118,687	119,017	0.3%	123,105	3.4%	117,332	-4.6%
Guhagar	2.25	66,654	71,729	7.6%	74,030	3.2%	70,320	-5.0%
Sangameshwar	2.85	126,700	129,412	2.1%	134,937	4.2%	130,464	-3.3%
Ratnagiri	1.81	136,840	147,182	7.5%	149,867	1.8%	142,898	-4.6%
Rajapur	2.56	140,941	153,808	9.1%	155,227	0.9%	151,987	-2.0%
Deogad	2.34	128,708	143,750	11.6%	148,897	3.5%	144,106	-3.2%
Malvan	1.41	92,437	107,944	16.7%	111,257	3.0%	106,122	-4.6%
Vengurla	0.92	39,418	44,863	13.8%	45,443	1.2%	48,423	6.5%
Whole								
district	2.21	105,926	1,167,927	5.5%	1,203,638	3.0%	1,154,244	-4.1

Source

Census of India 1891 Vol. VII Pt. II Table I, Census of India 1901 Vol. IXA Pt II Table I, Census of India 1911 Vol. VII Pt. II Table I, Census of India 1921 Vol. VIII Pt. II Table I.

Table 1.8 **Population of Villages in Ratnagiri and Sangameshwar Talukas**
1830-1961

1.8A Villages in Ratnagiri Taluka

North of the Taluka (tarf Sytowde, Dhamanase and Phungus)

Khoti Villages				Dharekari Villages			
	1830	1911	1961		1830	1911	1961
Sanden Lawgan	121	345	397	Jaigad	1,796	2,303	2,309
Jambhari	483	1,390	1,699	Nandiwda	1,062	1,260	1,434
Sandkhol	35	112	160	Satkondi	120	357	411
Kachre	32	80	72	Sytowde	1,023	2,532	3,067
Chapheri	100	574	668	Waidya Lawgan	52	119	144
Undi	34	122	231	Ril	293	649	677
Kansarveli	430	1,964	1,813	Waravde	1,697	2,365	2,879
Gadanaral	134	508	549	Malgund	1,239	3,005	3,312
Kolisre	173	567	632	Nivendi	778	1,914	2,300
Agarnaral	112	549	770	Watad	455	1,707	2,027
Kalajhondi	367	1,014	1,237	Deud	501	1,554	368
Rai	191	652	796	Phungus	784	1,515	1,610
Khalgaon	346	1,008	1,155				
Agwe	97	245	1,054				
Narsingan	29	197	155				
Vilye	91	372	301				
Majare	294	912	854				
Davkhol	161	376	362				
Upalen	61	196	237				
Den	77	256	244				
Pochri	79	367	439				
Increase %		242%	17%	Increase %		129%	-8%

South of the Taluka (tarf Kuriat Nevre and Harchri)

All Dharekari Villages	1830	1911	1961
Kasba Nevre	2,116	3,805	4,184
Wada Dokamle	90	215	176
Kotavade	891	2,426	2,726
Wada June	47	82	99
Wada Sade	66	245	328
Wada Piradawne	151	281	328
Wada Basni	276	942	1,053
Nachne	679	1,369	1,741
Wada Juve	255	546	385
Bhatye	273	1,079	1,293
Phansop	724	2,365	2,195
Increase %		140%	9%

Table 1.8B Villages in Sangameshwar Taluka**Tarf Sangameshwar**

Khoti Villages				Dharekari and Mixed Villages			
	1830	1911	1961		1830	1911	1961
Murduv	366	1,169	1,346	Aravli	527	1,169	1,541
Shind Ambera	113	290	234	Burbad	1,896	1,889	2,457
Ambawe	399	949	1,113	Sarand	626	471	607
Tural	646	1,447	1,681	Kadvai	827	3,103	3,946
Ambet	23	4	2	Makhjan	883	1,980	2,278
Mavlang	200	405	933	Karajuven	577	1,832	1,817
Rajwadi	201	2350	616	Piradavne	309	706	710
Dhamapur	1,832	651	396	Sangameshwar	1,309	3,312	3,494
Chikhali	468	513	1,202	Kolambe	529	1,128	1,294
Shembavne	152	587	681	Wandri	452	713	763
Dhamni	262	988	1,182				
Kumbharkhani				Increase %		118%	16%
Khurd	176	1,114	605				
Dingni	779	1,824	2,352				
Bhirkhond	200	373	158				
Asurde	183	480	563				
Kond Asurde	233	150	791				
Ambedu Khurd	247	653	840				
Wada Tikanath	0	26	88				
Phansavna	291	1,070	1,281				
Wada Nidhale	45	96	216				
Ojharkhol	192	323	400				
Mabhale	370	714	1,067				
Wada Nawadi	416	955	1,021				
Ujgaon	258	838	1,086				
Kalbaste	474	1,630	2,002				
Vesrad	35	437	219				
Terye	249	762	1,059				
Sonvde	275	652	815				
Karambele	90	545	593				
Devle	162	274	1,514				
Nadlaj	127	467	504				
Kumbharkhani							
Budruk	673	1,574	1,754				
Ragaon	117	539	585				
Kuchambe	222	338	779				
Kond Bhairov	12	52	741				
Masarang	190	367	470				
Nivli	206	421	463				
Tambedi	239	608	758				
Karbhatle	111	284	310				
Umaren	344	820	1,006				
Wanshi	283	954	1,094				
Kulen	159	496	543				
Shringapur	295	944	1,008				
Increase %		154%	20%				

Tarf Devrukh Khoti villages

	1830	1911	1961
Talye	72	180	223
Kante	191	569	648
Chandivne	74	160	235
Ghodavli	205	404	531
Pangari	263	668	754
Ambavli	301	965	1,229
Tamhane	151	370	546
Kosum	776	1,302	1,668
Sadawli	363	679	960
Kudawli	49	165	237
Sagawen	225	474	163
Tulsani	387	953	1,227
Patgaon	171	502	685
Wansi	142	701	1,017
Nive Budruk	296	952	1,071
Devrukh	1,241	3,826	6,470
Kond Ozar	12	147	196
Talavde	80	313	446
Balari Budruk	103	517	561
Harpuden	187	778	920
Hativ	253	933	1,261
Nive Khurd	131	674	737
Phansale	142	349	497
Kundi	124	450	674
Nigudwadi	160	356	418
Gotane	83	389	402
Sonvde	93	369	528
Angavli	236	818	1,049
Bannoli	322	1229	1,816
Ozhar Budruk	109	1026	1,128
Increase %		210%	35%

Tarf Devle Khoti villages

	1830	1911	1961
Chaphavli	71	701	944
Meghi	112	800	982
Karambele	17	277	492
Kankadi	73	1,108	1,514
Choravne	265	749	1,015
Karanjari	0	44	178
Tivre	112	492	692
Devle	716	1,622	1,799
Dakhin	91	370	473
Niwde	24	148	305
Increase %		326%	33%

Source

Dowell's Notes; Selections NS no 559 (Bombay, 1919) Appendix Q; Selections NS no 574 (Bombay, 1920) Appendix Q; Maharashtra State Gazetteer Ratnagiri District (Bombay, 1962)

Table 2.1 Migration and Mill Employment 1864-1921

Born in Ratnagiri <u>Living in Bombay</u>			Migrants as % of population <u>of Ratnagiri</u>	Average daily mill employment in <u>Bombay</u>
Male	Female	Total		Male and Female
1864	(111,478)			(1865) 6,557
1872	37,988	18,891	56,879	6% 8,816
1881	79,249	46941	126,190	13% 31,351
1891	108,828	53,758	162,586	15% 61,981
1901	95,638	50,197	145,835	12% 82,162
1911	143,498	72,562	216,060	18% 104,500
1921	154,460	81,096	235,556	20% 147,740

Source Census of the Island of Bombay 1864 p. 98; Census of Bombay Presidency 1872 Vol II Table II; Census of the City of Bombay 1872 Table 74; Census of India 1881 Vol II Tables I, X and XI; Census of India 1891 Vol. VII Part II Table I and XI; Census of India 1901 Vol. IXA Part II Table I and XI; Census of India 1911 Vol. VIII Part II Table I and XI. Data on Mill employment from M. D. Morris, op.cit. (1965) Appendix II (Source British Mill Owners' Association Annual Reports).

Table 2.2 **Rice/Wage Index, Ratnagiri District and
Bombay City 1830-1916**

Rice (unhusked 'second' or 'common' sort) prices in tolas per anna x Wages
daily in annas

Date	Ratnagiri		Bombay			
	Unskilled	Skilled	Mill	Skilled	Unskilled	
	Field	Ordinary	Labour	Labour	Labour ^a	
	Labour	Labour				
	1	2	3	4	5	6
1830-9		172	516-602		594	198-330
1840-9		258	688		640-720	320
1850-9		249	747		765-850	425
1863		180	360-540		616-660	220-264
1871	153		408			
1872	144		384			
1873	234		624			
1874	195		520			
1875	183		488			
1876	168		504			
1877	123		369			
1878	123		369			
1879	224		504			
1880	212		477			
1881	292		657			
1882	296		666	369-492		
1883	280		700	369-492	646-984	246
1884	256		576	342-456	646-912	228
1885	236		590	333-444	629-888	222
1886	256		576	333-444	629-888	222
1887	266		603	324-432	612-900	216
1888	236		531		629-858	198

	1	2	3	4	5	6
1889	252		567		629-925	222
1890	168		560		585-858	234
1891	216		540		540-792	216
1893	208		520	324-648	540-792	216
1894	232		580	424-828	690-1012	276
1895	236		531	477-954	795-1166	318
1896	232		522	450-900	750-1100	300
1897	176		396	369-738	615-902	246
1898	216		486	423-846	705-1034	282
1899	216		486	423-846	705-1034	282
	Rat. Khed	Rat. Khed	Rat. Khed ^b			
1900	150 150	200 150	300 400	396-792	660-968	264
1901	165 200	220 165	330 490	414-828	690-1072	276
1902	172 180	230 180	345 480	378-756	630-924	252
1903	156 165	208 110	312 440	360-720	600-880	240
1904	165 165	220 165	440 440	360-720	600-880	240
1905	159 150	212 150	424 400	360-720	600-880	240
1906	135 135	194 135	360 360	360-720	560-800	240
1907	129 135	185 135	344 360	378-756	672-798	252
1908	156 135	160 135	384 360	342	510-680	204
1909	204 135	190 180	475 360	418	630-840	252
1910	198 135	172 180	430 360	428	690-874	276
1911	124 120	160 160	412 320	322	720-900	270
1912	152 160	195 200	468 320	315	570-760	228
1913	163 160	310 240	388 400	324		
1914	196 140	208 210	393 350	360		
1915	187 140	191 210	360 350	359		
1916	222 120	222 180	370 300	348		

Footnotes for Table 2.2

a. From 1883-1912 the data provided for unskilled work in Bombay in *Prices and Wages in India* is for an agricultural labourer. Agricultural labourers' wages in Bombay appear to have been equivalent to the lower paid unskilled urban jobs; in 1908, while the average daily wage of an agricultural labourer was 7 annas, that of a female coolie was 4-7 annas and a domestic servant 2-5 annas: *Gazetteer of Bombay City and Island Vol I* (Bombay 1909) pp.323 and 208-14.

b. Prices for Ratnagiri and Khed talukas, wages for Ratnagiri town and Khed town.

Sources for Table 2.2:

1830-1863 prices and wages from C. B. Hart, B. H. Ellis and J. B. Dunsterville, *Memo by the Commission appointed to Collect Information on the Subject of Prices* (Bombay, 1864/5).

1873-99 wages in Ratnagiri from *General Report on the Administration of the Bombay Presidency for 1871/2* (Bombay, 1873) and annually to 1899.

1900-1916 wages in Ratnagiri from G. Findlay Shirras, *Report on an Enquiry into Agricultural Wages in the Bombay Presidency* (Bombay, 1924) pp. 58-85.

1863-1880 prices in Ratnagiri from *Gazetteer* (1880) p.163.

1880-1899 prices in Ratnagiri from *General Report on the Administration of the Bombay Presidency for 1880/1* (Bombay, 1881) and annually to 1899.

1900-1916 prices in Ratnagiri from *Selections* N.S. no. 574 (Bombay, 1920) Appendix N p. 38 and *Selections* N.S. no. 627 (Bombay, 1929) Appendix I p. 33.

1882-1907 Mill wages in Bombay (for a weaver in Manokjee Petit Mill) for 1882-7 from *Parliamentary Papers* 1888 Vol. XLV; and 1893-1907 from *Prices and Wages in India* (Calcutta, 1919) pp. 188-189. 1907-16 weighted average of mill wages in Bombay from K. Mukerji, 'Trends in Real Wages in the Cotton Textile Mills in Bombay City and Island from 1900-1951', *Artha Vijnana* 1, 1959, pp. 82-95.

1883-1912 wages in Bombay skilled and unskilled from *Prices and Wages in India* (Calcutta, 1908) and annually to 1913.

1870-1907 prices in Bombay from *Gazetteer of Bombay City and Island* Vol.I (Bombay, 1909) Appendix II pp. 336-7.

1908-16 prices in Bombay from *Prices and Wages in India* (Bombay, 1909) and annually to 1918.

Table 2.3 **Seasonal Variations in Deaths in Bombay by
Occupation 1849-64 as % of Total Deaths in Each Occupation**

Occupation	Quarters			
	First Feb-April	Second May-July	Third Aug-Oct	Fourth Nov-Jan
Beggar/Vagrant	26.6%	22.6%	22.6%	28.2%
Boatman/ Maritime man	28.9%	26.3%	18.9%	26.2%
Cook/Baker/ Confectioner	30.8%	26.7%	19.6%	22.8%
Domestic Servant/ Barber	28.2%	26.0%	20.8%	25.0%
Draper/Clothier	27.9%	26.5%	22.1%	23.6%
Fisherman/Fishmonger	26.9%	26.0%	22.6%	24.5%
Goldsmith/Watchmaker	27.7%	26.5%	21.5%	24.3%
Labourer	27.6%	26.4%	19.9%	25.9%
Leatherworker/Dealer/ Maker	28.2%	27.5%	21.1%	23.3%
Liquor seller/ Distiller	25.6%	24.4%	23.9%	26.0%
Mason/Quarryman/ Dealer	28.3%	25.1	21.3%	25.3%
Merchant/Banker/ Broker	26.1%	26.5%	22.9%	24.5%
Sweeper	28.1%	27.3%	20.8%	22.7%
Tailor/Embroiderer/ Tentmaker	29.1%	24.7%	21.4%	24.6%
Writer/Accountant	27.1%	26.5%	22.8%	23.25%
Total Deaths in Bombay	27.8%	26.2%	21.0%	24.9%

Source

Deaths in Bombay (Bombay Mortuary Reports, annually 1850-1864)

Table 2.4 **Seasonal Movements of Steamship Passengers Between Bombay and Ratnagiri**

Table 2.4A **Percentage of Passengers Travelling Each Month Between Bombay and Ports in Ratnagiri Taluka**

		First and Second Class		Third Class	
		Ratnagiri to Bombay	Bombay to Ratnagiri	Ratnagiri to Bombay	Bombay to Ratnagiri
1913	October	10%	9%	12%	6%
	November	11%	11%	13%	8%
	December	12%	11%	17%	10%
1914	January	12%	9%	15%	13%
	February	8%	9%	10%	11%
	March	11%	20%	11%	17%
	April	13%	14%	12%	15%
	May	23%	18%	10%	20%
Total Passengers		18,035	24,087	52,082	51,887

Table 2.4B **Percentage of Passengers Travelling Each Month Between Bombay and Ports in Malvan Taluka**

		First and Second Class		Third Class	
		Malvan to Bombay	Bombay to Malvan	Malvan to Bombay	Bombay to Malvan
1911	October	8%	10%	12%	11%
	November	10%	11%	14%	11%
	December	11%	11%	17%	11%
1912	January	11%	10%	13%	13%
	February	7%	13%	9%	17%
	March	15%	15%	16%	12%
	April	17%	18%	12%	13%
	May	20%	12%	8%	11%
Total Passengers		4,671	5,848	24,684	23,911

Source Selections NS no 574 (Bombay, 1920) p.9, and Selections NS no 528 (Bombay, 1915) p. 6.

Table 2.5 **Acres of Kharif and Rabi^a under Cereals and Pulses in
Bombay Presidency 1889-90**

	Cereals		Pulses	
	<u>Kharif</u>	<u>Rabi</u>	<u>Kharif</u>	<u>Rabi</u>
Ahmedabad	702,081	189,267	73,884	11,275
Kaira	561,096	26,788	76,695	4,385
Panch Mahals	246,212	18,587	21,934	52,376
Broach	61,746	169,625	6,745	55,568
Surat	280,435	23,861	33,670	52,286
Khandesh	1,351,459	219,491	148,422	38,231
Nasik	1,179,060	356,636	119,807	83,309
Ahmednagar	1,025,306	1,255,920	113,105	106,568
Poona	785,456	969,172	77,789	92,586
Sholapur	364,008	1,291,908	148,170	68,147
Satara	1,109,476	285,303	228,575	98,676
Belgaum	882,820	415,518	122,113	72,395
Bijapur	921,799	964,471	207,552	54,456
Dharwar	744,890	465,920	139,631	63,715
Thana	458,496	2	37,307	6,431
Kolaba	316,203	0	2,344	19,122
Ratnagiri	421,675	0	35,400	0
Kanara	187,311	13,607	2,078	4,542

Footnote Table 2.5

a) Kharif in this context is cultivation in the June-August monsoon; rabi is cultivation using the September-October monsoon rains.

Source

Annual Report of the Director, Land Records and Agriculture, Bombay Presidency, for the year 1889-90 (Bombay, 1890) Accompaniment A to Return III p.xviii.

Table 2.6 Main Female Occupations, Ratnagiri 1881-1921

Total numbers of women employed in each occupation, and sex ratio of male:female workers in each occupation.

Occupation	1881		1901		1911		1921	
	Workers	SR	Workers	SR	Workers	SR	Workers	SR
Cultivators	134,587	136	246,724	94	204,629	107	62,369	107
Field labourers ^a	32,805	70	19,305	65	49,515	46	3,824	44
General labourers	27,140	53	7,272	61	2,394	72	769	
Fisherman/sellers	7,584	105	11,417	97	8,228	122	2,010	428
Domestic servants	733	410	1,307	285	2,619	188	3,105	59
Sheep/cattle herds ^b	1,063	814	1,002	751	1,729	751		
Beggars ^c	5,076	135	3,554	168	2,777	241	1,954	65
Cotton spinner	1,899	11	108	21			1,004	40
Cotton weavers	123	342	166	620	2,322	61	741	275
Shoemakers	631	321	955	208	413	404	445	364
Potters	727	193	758	116	1,136	91	769	111
Oil maker/sellers	704	300	827	222	580	250	345	260
Basket weavers	378	59	1,002	70	925	49	405	75
Porters	156	69	506	105	268	210	579	33
Total female population	524,037		620,402		650,256		628,013	

Footnote Table 2.6

- a) Includes farm servants.
- b) Includes breeders and sellers.
- c) Includes paupers, prostitutes and religious beggars.

Source Census of India 1881 Vol II Appendix C pp.1xxvi-1xxiv;
Census of India 1901 Vol IXA Part II Table XV; Census of India 1911 Vol VII Part II Table XV; Census of India 1921 Vol VIII Part II Table XVII

Table 2.7 **Allocation of Gross Cropped Area to Different Crops**
By Taluka in Ratnagiri District 1914/15

Taluka	Rice	Garden Crops	Sugar/hemp	Dry grains/pulses
	%	%	%	%
Vengurla	42.08	22.51	0.35	30.85
Malvan	43.50	8.98	1.31	46.21
Deogad	38.46	4.03	7.67	49.84
Rajapur	43.90	3.25	3.62	49.23
Ratnagiri	37.61	4.93	0.43	57.03
Sangameshwar	31.54	0.94	0.08	67.44
Chiplun	33.58	5.56	0.12	60.74
Khed	33.07	0.46	0.09	66.47
Dapoli	30.58	4.41	0.43	64.51

Source P.C. Patil, *The Crops of Bombay Presidency* (Department of Agriculture Bulletin No. 109 Bombay 1921) p. 125

Table 3.1 Population of Ratnagiri District 1820-1921

Date	Col I Population	Col II Sex ratio	Col III Average household size	Col IV % increase population from last observation	Col V Emigrants living in Bombay Presidency	Col VI % increase from last observation in Col. V+I
1820	462,651	106				
1827/8	479,424	102		0.45%		
1828/9	487,676			0.5%		
1829/30	496,663			1.84%		
1830/1	503,632			1.4%		
1831/2	501,744			-0.37%		
1832/3	501,328			0.08%		
1833/4	507,242			1.17%		
1834/5	507,242			0.0%		
1835/6	509,240			0.30%		
1836/7	509,881			0.12%		
1837/8	509,351			-0.1%		
1838/9	511,048			0.33%		
1839/40	511,223			0.03%		
1840/1	514,532			0.64%		
1841/2	529,520	103		2.9%		
1845	621,280			5.5%		
1846	625,782	110	5.4	0.7		
1851	665,238	111	5.2	1.23%		
1855	681,147		5.3	0.6%		
1864	746,045/901,958 est.			1.06%/3.6%	(111,478) ^a	
1872	1,019,136	93	4.5	1.62%/4.58%	(56,879) ^a	(0.8%/3.2%)
1881	997,090	90	5.6	-0.3%	173,043	0.48%
1891	1,105,926	87	5.6	1.0%	348,151	1.56%
1901	1,167,927	88	5.4	0.55%	214,151	0.2%
1911	1,203,638	85	5.1	0.3%	289,727	0.8%
1921	1,154,244	84		-0.41%	303,090	-0.2%

Footnote Table 3.1

a) In Bombay City only

Sources

BRP 1821 Range 368 Vol. 8 Revenue Report for 1818/19 and 1819/20 dated 18.1.1821: BRP 1843 Range 374 Vol. 120 no. 4796 dated 28.2 1843 enclosed with Ratnagiri Revenue Report for 1841/2: Pune Archive Revenue Commissioner Central Division Records Miscellaneous Files Vol. 137 of 1846: Pune Archive Revenue Central Division Records Miscellaneous Files Vol 245 of 1851: MSA RD 1855 Vol 20 'Filed Papers connected with the Administration of the Presidency 1855/6' Part 4 letter no. 614 dated 22.07.1856 p.1285: Census of the Island of Bombay 1864: Census of Bombay Presidency 1872 Vol. II Table I: Census of the City of Bombay 1872 Tables pp. 168-171: Census of India 1881 Bombay Presidency, Vol. II Appendix A Tables I, X and VI: Census of India 1891 Vol. VII Part II Tables I and XI: Census of India 1901 Vol. IX-A Part II Tables I and XI; Census of India 1911 Vol. VII Part II Tables I and XI: Census of India 1921 Vol. VIII Part II Tables I and XI

Table 3.2 **Population Growth in 12 Villages in Tarf Sangameshwar, Sangameshwar Taluka, Ratnagiri District 1780-1911**

Village	No. of households		Average annual % increase	Households	Average annual % increase	Households	Average annual % increase
	1780 ^a	1790	1780-90	1830	1790-1830	1911 ^b	1830-1911
Borasut	20	25	2.5%	29	0.5%	75	1.96%
Dingni	93	110	1.7%	116	0.15%	358	2.6%
Karambele	22	31	3.8%	23	-0.75%	107	4.5%
Kuchambe	36	43	1.8%	33	-0.7%	66	1.2%
Kule	28	57	7.5%	32	-1.45%	97	0.6%
Muchari	64	73	1.4%	140	1.65%	269	1.1%
Ragaon	43	43	0.0%	38	-0.3%	105	2.2%
Rajwadi	38	42	1.0%	40	-0.1%	461	12.9%
Sonavde	54	59	0.9%	48	-0.5%	126	2.0%
Terye	34	46	3.0%	53	0.4%	149	2.2%
Tural	96	103	0.7%	105	0.1%	284	2.1%
Wasi	58	74	2.6%	62	-0.45%	187	2.4%
Average	49	59	2.04%	60	0.04%	190	2.7%

Footnote Table 3.2

a) In the case of Dingni, Ragaon and Tural, this figure is based on details given in the 1790 House Tax Survey, of the number of houses recorded in the previous survey. For the other villages, it is based on the karsai records, which are themselves almost certainly based on the 1780 house tax survey (see Appendix I). Since the karsai records exclude Brahmans, Beggars and Slaves, the numbers of houses of these groups in 1790 has been added to the karsai figures, which makes the 1780 figure for these villages probably a slight overestimate.

b) Households are obtained by dividing the population by the average household size for the taluka in the 1911 census (5.1), but this probably underestimates the rate of growth of households from 1830-1911, as households were defined differently by 1911 (see Appendix II).

Sources

For 1780 and 1790, Peshwa Daftar, Konkan Jamao, Ruma 496 and 497; for 1830, Dowell's Notes, passim; for 1911, Selections NS no.559 (Bombay, 1919) Appendix Q.

Table 3.3A **Distribution by Age of Male Children Under 15 in Ratnagiri District**

% of male children under 15	1855 ^a	1881	1891	1901
aged 0-5	47%	33%	37%	30%
aged 5-10	36%	38%	36%	38%
aged 10-15	22%	28%	26%	31%

Table 3.3B **Ratio of Male Children to Women in Ratnagiri District**

	1855	1881	1891	1901
Male children aged 0-5 per 100 married women + widows ^b	58	39	44	36
Male children aged 0-5 per 100 women of childbearing age ^c		34	36	31
Male children aged 5-10 per 100 married women + widows	25	22	21	22
Male children aged 10-15 per 100 women of childbearing age		29	26	32

Table 3.3C **Household Structure in Ratnagiri District**

	1855	1881	1891	1901
Average no. people per house	6.4	5.6	5.6	5.4
Average married women per house	1.5	1.4	1.5	1.3
Average widows per house	0.5	0.6	0.5	0.6
Average men over 15 per house	1.8	1.4	1.4	1.4
Average children per house	2.4	2.3	2.2	2.2

Table 3.3D **Children per 100 Married Women aged 15-40 in Ratnagiri District**

	1872	1881	1891	1901
Children under 1	18	10	15	
Children under 10		180	169	176

Footnotes for Table 3A,B,C and D.

a. Based on 30 villages in Ratnagiri taluka; data for 1881-1901 based on the whole district.

b. Male children are used because of the unreliability of data on female children. 'Married women + widows' is used because it is not possible to obtain data on 'women of childbearing age' for 1855.

c. 'Childbearing age' = 15-40

d. For problems in using data on houses, see Appendix II

e. For 1872 it is only possible to obtain data for women aged 15-40

Sources

MSA RD 1855 Vol.195/980 letter no 34 dated 13.4.1855; Census of India 1881 Bombay Presidency, Vol II Tables I and VI; Census of India 1891 Vol VII Part II Tables I and VIII; Census of India 1901 Vol.IXA Part II Tables I and VII.

Table 3.4 **Percentage of Each Age Group Unmarried in Ratnagiri District**
1881-1931

Age	1881		1891		1901		1911		1921		1931	
	m	f	m	f	m	f	m	f	m	f	m	f
0-9	99	92	99	94	99	96	99	95	99	96	99	93
10-14	91	33	93	32	95	45	95	44	96	53	96	66
15-19	46	4	68	3	75	5	75	5	81	6	71	11
20-29	22	1	20	1					26	2	30	2
30-39	5	1	4	1	14	1	14	1	4.5	1	4	2
40-49	2	1	1	1					3	1	2	0.5
50-59	2	1	1	0.5	2	1	2	1	2	1	1	0.4
60 +	1	1	1	0.5	1	1	2	1	2	1	1	0.4

Sources *Census of India 1881, Bombay Presidency Vol. II Table VI; Census of India 1891 Vol. Part II Table VIII; Census of India 1901 Vol. IX-A Part II Table VIII; Census of India 1911 Vol. VII Part II Table VII; Census of India 1921 Vol. VIII Part II Table VII; Census of India 1931 Vol. VIII Part II Table VII*

Table 4.1 Tenurial status of Cultivators in Villages in Ratnagiri

Table 4.1A Tenurial Status and Land Control in 5 Khoti Villages in Sangameshwar Taluka

Village	% watandar & landowner households to total 1830	% occupancy tenant & landowner households 1886	% village land cultivated by watandars 1830	% village land cultivated by occupancy tenants 1886
Kadamrao	59%	68%	33%	59%
Nigudwadi	56%	92%	25%	91%
Harpude	33%	79%	75%	89%
Chandivne	29%	70%	32%	39%
Sonarwadi	60%	70%	50%	60%

Table 4.1B Tenurial Status in 45 Khoti Villages in Sangameshwar Taluka

Tarf	no of villages	watandar & landowner households 1830	% watandar and land owner households 1830	occupancy tenant and landowner households 1886	% occupancy tenants and landowners 1886
Devle	8	188	64%	1,008	79%
Devrukh	18	361	43%	1,988	81%
Kondivre	4	152	74%	529	11%
Sangameshwar	15	279	45%	1,448	26%
Total	45	980	50%	4,973	79%

Source

Dowell's Notes and botkuts of the Survey Settlement.

Footnote for Table 4.1

The 1885/6 survey data does not list those holdings cultivated by ordinary tenants at will, only those of occupancy tenants with security of tenure. However, if the village population statistics for 1911 are used, and the number of households calculated from this (assuming average household size in Sangameshwar in 1911, i.e. 5) and then reduced by 6% to correspond to the population growth in Sangameshwar taluka from 1891-1911, a rough approximation of the number of households in the village at the time of the survey settlement can be obtained. Assuming that one registered holding in the survey records is equivalent to one household, it is then possible to calculate roughly the proportion of occupancy tenants to total households.

Table 4.2 Average Holdings of *khoti* tenants in Muchari village, *tarf* Sangameshwar in 1885

Caste/ religion	Rice holding		Dry land holding		Total holding	
	acres	guntas	acres	guntas	acres	guntas
Brahman	1a	28g	7a	16g	9a	4g
Maratha	-	25g	9a	32g	10a	17g
Kunbi	-	14g	6a	32g	7a	6g
Muslim	-	35g	2a	20g	3a	15g
Gurav	-	10g	3a	3g	3a	13g
Gosavi	-	17g	4a	3g	4a	20g
Gavli	-	-	1a	6g	1a	6g
Mahar	-	17g	7a	1g	7a	18g
Sutar	-	35g	4a	24g	5a	19g
Sonar	2a	10g	3a	27g	5a	37g
Whavi	1a	-	4a	8g	5a	8g
Kumbhar	-	-	3a	22g	3a	22g

Source: *Botkhut* of Muchari village, Survey Settlement Records, Taluka office, Deorukh, Ratnagiri district.

Table 4.3 **Rates of Rent in 80 Villages in Ratnagiri and Sangameshwar Talukas in 1830**

Caste/religion	% paying half share	% paying third share	% paying quarter share	% paying makta
Kumbhar	100%	-	-	-
Bhoi	100%	-	-	-
Mahar	82%	10%	1%	1%
Kunbi	75%	22%	1%	2%
Dhangar	66%	33%	-	-
Gavli	61%	39%	-	-
Chambhar	60%	40%	-	-
Dhawad	50%	50%	-	-
Gurav	48%	48%	-	1%
Teli	47%	47%	-	4%
Parit	49%	50%	-	-
Nhavi	38%	53%	-	5%
Bhandari	33%	66%	-	-
Sutar	33%	66%	-	-
Sonar	29%	66%	-	3%
Muslim	27%	63%	9%	-
Goswami	25%	75%	-	-
Vani	14%	43%	-	5%
Maratha	13%	81%	2%	2%
Brahman	-	69%	22%	8%

Source Dowell's Notes, *passim*

Table 5.1 **Summary of the Data on Land Use in Ratnagiri and Sangameshwar talukas 1789-1885**

	A 1789 <u>acres</u>	B 1827 <u>acres</u>	C % change A/B	D 1827 <u>acres</u>	E 1867/85 ^a <u>acres</u>	F % change D/E
<u>Total cropped area</u>						
Group A (277 villages in Ratnagiri & Sangameshwar)	67,000	79,640	+19%			
Group D (31 villages in Sangameshwar)	7,159	11,457	+60%			
<u>Wet rice cultivation</u>						
Group A (277 villages in Ratnagiri and Sangameshwar)						
Cropped area:	10,724	15,179	+41%			
Cultivable area:	12,952	18,742	+45%			
Group B (103 villages)						
Cultivable area:						
in 36 villages in Ratnagiri				3,226	4,638	+44%
in 67 villages in Sangameshwar				4,794	7,481	+56%
Group C (48 villages in Ratnagiri)						
Cultivable area:				2,542	4,026	+58%
Group D (31 villages in Sangameshwar)						
Cropped area:	1,423	2,351	+65%			
Cultivable area:	1,730	2,723	+57%	2,723	3,909	+43%
<u>Rabi Cultivation</u>						
Group A (277 villages in Ratnagiri and Sangameshwar)						
Cropped area:	4,253	2,543	-40%			
Group D (31 villages in Sangameshwar)						
Cropped area:	143				35	-75%
<u>Garden Cultivation</u>						
Group A (277 villages in Ratnagiri and Sangameshwar)	4,438	5,904	+33%			
<u>Hill Cultivation</u>						
Group A (277 villages)						
Total cropped area	52,623	61,918	+18%			
Cropped level hill	25,190	30,130	+20%			
Cropped steep hill	27,433	31,788	+16%			
Group B (103 villages)						
Cropped area ^b						
in 36 villages in Ratnagiri				6,287	8,361	+33%
in 67 villages in Sangameshwar				16,397	20,858	+27%

Footnotes for Table 5.1

- a) The Survey of Ratnagiri *taluka* was made in 1867/70, and the survey of Sangameshwar *taluka* in 1885.
- b) Cultivable area.
- c) The settlement records only provide data on cultivable hill land, but some estimate of cultivated hill land for 1867/85 can be reached by estimating the proportion of fallow to cultivation in hill land. In Sangameshwar *taluka* at the time of the Original Settlement in 1885 it was estimated that one quarter of the arable hill land was cultivated each year (*Selections* NS no. 171 (Bombay 1885) p. 26 letter no. R/3 of 18.4.1885 para. 3) and the Director of Agriculture's statistics for 1903/4 in the Revision Settlement Report confirm this estimate, showing that if garden and rice land are deducted 78% of the remaining land (the cultivable hill land) was fallow (*Selections* NS no. 559 (Bombay 1919)). For Ratnagiri *taluka* the Director of Agriculture's statistics for 1908/9-1912/13 show that 74% of cultivable hill land was fallow (*Selections* NS no. 574. (Bombay 1920) Appendix B). To reach an estimate of cultivated hill land for 1867/85 I have therefore divided the acreage of cultivable hill land by 4.

Sources

For Group A: BRP Range 370 Vol. 63 no. 2039A accompanying no. 2035 dated 3. 9. 1831, Table A; for Group B: *Dowell's Notes*, *Selections* NS no. 574 (Bombay 1920) Appendix Q, *Selections* NS no. 559 (Bombay 1919) Appendix Q; for Group C: *Selections* NS no. 377 (Bombay 1898) Appendix R letter no.354 dated 29.4.1867 para. 6; for Group D: Peshwa Daftar, Konkan Jamaro, Rumal 496 and 497, and *Dowell's Notes*.

Table 5.2 **Comparison of Cultivation in 277 Villages in Ratngiri and Sangameshwar talukas (Group A Villages) in 1789 and 1827, adapted from Captain Dowell's Table^a**

	1789 survey acres	1827 survey acres
1. Total arable land	265,218	353,580
2. Total cultivated land	67,000	79,640
3. Batty ^b land cultivated	14,977	17,722
4. Batty land permanently cultivated	10,724	15,179
5. Batty in hill land ^c	4,253	2,543
6. Dry grain land cultivated	52,623	61,918
7. Batty in hill land ^c	617	1,174
8. Dry grain in level hill land	24,433	28,956
9. Dry grain in steep hill land	27,433	31,788
10. Fallow and garden land	198,219	273,940
11. Batty land waste	2,228	3,563
12. Level land fallow	42,601	56,573
13. Hill land fallow	148,953	207,900
14. Garden land	4,438	5,904

Footnotes of Table 5.2

a) This table is adapted from BRP Range 370 Vol. 63 no. 2039 A accompanying no. 2035 dated 3.9. 1831 Table A A11 measurements are in acres.

b) Batty is 'rice'.

c) There is some confusion here, with two headings (numbers 5 and 7) reading 'Batty in hill land'. In most respects, the headings given by Dowell follow the headings in the eighteenth century revenue records (the *pahani jirayet*, see Appendix III), in the correct order. In the *pahani jirayet* the third heading was usually not 'rice land' but 'rakhmi land' which means land cultivated permanently, without fallows. This was usually rice land, but also included rabi land, the moist land on the banks of creeks where hill grains, pulses and crops such as hemp and sugar could be grown without fallows. It seems likely, therefore, that Dowell mistranslated 'rakhmi' in number 3 and 5 as 'rice' or 'batty'; in number 3, the heading should be 'permanently cultivated land', and in number 5 the heading should be 'rakhmi' land, as in eighteenth century records. The heading number 7, 'batty in hill land' will therefore refer to 'dry rice' grown in hill land, using fallows like other 'dry grains' for which data is given in the later sections of the '*pahani jirayet*'.

Table 5.3 Land Use and Population Growth in 99 Villages in Ratnagiri and Sangameshwar talukas (Group B villages) from 1827-1885 (in acres).

Table 5.3A Ratnagiri taluka

	Cultivable rice land				Cultivated hill land				Population	
	1828 acres	1868 acres	1828 acres	1868 acres	1828 acres	1868 acres	1828 acres	1868 acres	1830	1872
	acres	per head	acres	per head	acres	per head	acres	per head		
Tarf										
Sytowde										
19 villages	1,307	0.15	2,094	0.14	3,814	0.44	4,541	0.3	8,580	14,868
Phungus & Dhamanse										
6 villages	212	0.18	558	0.14	1,388	1.24	2,022	0.52	1,123	3,865
Kuriat Nevre										
8 villages	1,462	0.27	1,802	0.18	1,068	0.20	1,719	0.17	5,344	10,109

Table 5.3B Sangameshwar taluka

	Cultivable rice land				Cultivable hill land				Population	
	1828 acres	1868 acres	1828 acres	1868 acres	1828 acres	1885 acres	1828 acres	1885 acres	1830	1881
	acres	per head	acres	per head	acres	per head	acres	per head		
Tarf										
Devrukh										
12 villages	434	0.21	743	0.12	3,044	1.55	6,679	1.0	2,026	6,404
Sangameshwar & Kondivre										
48 villages	3,791	0.26	5,756	0.17	11,749	0.8	13,209	0.39	14,333	34,104

Footnotes for Table 5.3A and B

a. Cultivated hill land for 1868/1885 is calculated as one quarter of the area of cultivable hill land: for the basis of this calculation, see Table 5.1.

b. Population data are available for individual villages only for 1830 and 1911. Population is calculated, therefore, by deducting from the 1911 population of each village the percentage difference between the population of the whole taluka in 1911 (Census of India 1911 Vol.VII Pt.II Table I) and the population of Ratnagiri taluka in 1872 and the population of Sangameshwar taluka in 1881.

Source Dowell's Notes; Selections NS no 559 (Bombay, 1919) Appendix Q; Census of Bombay Presidency 1872 Vol.II Pt.II Table I; Census of India 1881 Bombay Presidency Vol II Table I.

Table 5.4 **Cultivation and Population in Eight Villages**
in Sangameshwar taluka 1789-1885; Acres Per Head

Village	1789 ^a		1829		1885	
	Rice ^b	Hill	Rice	Hill	Rice	Hill ^c
Dingni	0.17	0.35	0.17	0.53	0.12	0.42
Muchari	0.27	0.97	0.20	0.78	0.21	0.50
Ragaon	0.39	0.91	0.97	1.29	0.35	0.51
Sonavde	0.35	0.29	0.58	0.25	0.34	0.21
Terye	0.32	1.15	0.30	1.07	0.21	0.44
Tural	0.87	0.71	0.20	0.79	0.16	0.56
Ujgaon	0.04	1.52	0.09	1.04	0.07	0.56
Wasi	0.21	0.59	0.42	1.06	0.21	0.46
Average	0.33	0.69	0.37	0.85	0.21	0.43

Footnote Table 5.4

a) Data on population 1789/90 consists merely of the numbers of households. I have converted this into a population figure by using the average household size for the district in the census of 1820, i.e. 4.9. For the method of calculating population for 1885 see Table 5.3.

b) Rice throughout the table = cultivable rice land.

c) Hill throughout the table = cultivated dry crop land. For the method of calculating cultivated dry crop land in 1885 see Table 5.1.

Note

Because so many assumptions have to be made - on the average household size in 1789/90, on the percentage of cultivable hill land actually cultivated in 1885, and on the percentage increase in population between 1885 and 1911 (when the village data are available) it is not possible to place much weight on the data on hill cultivation in this table unless they are corroborated from other sources.

Source

For 1789, Pune Archive, Peshwa Daftar, Konkan Jamao Rumat 496 and 497; for 1829, Dowell's Notes; for 1885, Selections NS no 559 (Bombay, 1919) Appendix Q and Q1.

Table 5.5 **Allocation of the Gross Cropped Area to Different Crops in Ratnagiri 1782-1915**

Taluka	% of Gross Cropped Area Allocated to:-									
	Rice	Nagli	Vari	Harik	Pulses	Oil	Seeds	Sugar	Hemp	Garden
<u>Dapoli</u>										
1877/8	9	31	22	24	0.9		7	0.06	0.2	0.8
1914/15	31	32	12	12	5		4	0.02	0.4	4
<u>Khed</u>										
1877/8	10	18	9	60	0.5		0.3	NA	1	0.02
1914/15	33	41	11	12	2		4	NA	0	0.5
<u>Chiplun</u>										
1877/8	10	31	20	34	4		0.6	0.08	0.2	0.3
1914/15	34	30	8	13	10		0.1	0.01	0.1	6
<u>Sangameshwar</u>										
1789 (31 villages)	23	28	20	18	4		2	1	0.4	NA
1877/8 (all villages)	30	26	16	22	4		2	0.2	0.1	0.09
1903/4 (27 villages)	28	(	63	)	5		3	0.4	NA	NA
1908/9- 1912/13 (28 villages)	33	(	55	)	7		4	0.06	0.09	NA
1914/15 (all villages)	32	37	8	15	6		2	0.06	0.02	0.9

	Rice	Nagli	Vari	Harik	Pulses	Oil Seeds	Sugar	Hemp	Garden
--	------	-------	------	-------	--------	-----------	-------	------	--------

Ratnagiri

1877/8	38	34	16	9	1	0.7	0.04	0.08	1
1903/4	41	(	43	)	5	8	0.02	2	2
(41 villages)									
1908/9-									
1912/13									
(51									
villages)	42	(	42	)	4	7	0.05	0.4	3
1914/15	38	25	10	12	4	6	0.06	0.4	5
(all villages)									

Rajapur

1877/8	36	18	14	23	3	2	0.4	2	1
1914/15	43	22	10	7	7	3	0.2	3	3

Deogad

1877/8	46	11	8	15	7	4	1	3	2
1914/15	38	24	5	7	10	4	0.5	7	4

Malvan

1877/8	42	14	3	11	7	5	0.8	0.6	13
1901/2-									
1910/11									
(55									
villages)	45	(	27	)	15	5	0.5	0.8	6
1914/15	43	17	3	9	13	4	0.7	0.6	9

Footnotes for Table 5.5

a. i) The heading *Varī* also includes *sawa*, as both were dwarf millets with very similar characteristics. In 1789 *sawa* was only 0.2% of GCA, and it was not mentioned in the 1901-1915 data, so it is likely that little was grown in the district at any stage, and its inclusion makes little difference to the data. In the 1877/8 data from the Gazetteer, *sawa* is given as representing from 3% to 22% of GCA, and *vari* is not mentioned, which suggests the data includes both.

ii) Data for 1903-13 puts *nagli*, *vari* and *harik* together, as 'dry grains'.

iii) Data on oil seeds refers to 'niger seed', since P. C. Patil, *op. cit.* (Bombay, 1921) makes clear that other oil seeds were too little cultivated in the area to be worth a mention. In British sources before 1890, however, *sesamum* is given as the only oil seed cultivated in the area, almost certainly owing to a confusion in translation (the word for niger seed in Ratnagiri being *til karla*, literally 'black sesamum') For an explanation of the confusion see Bombay Department of Land Records and Agriculture, 'Crop Experiments Bombay Presidency' 1895/6 Southern Division p. 40.

Sources

1789: Pune Archives, Konkan Jamao, Rumat 496 and 497.

1877/8: *Gazetteer* (1880) pp. 198-314. These figures must be somewhat impressionistic, since the Director of Agriculture's statistics were not being regularly produced yet, and even 12 years later could only give accurate figures for 177 villages out of 1,270 in the district (*Tenth Annual Report of the Department of Land Records and Agriculture Bombay Presidency 1892-3* (Bombay, 1893) p. xvi).

1901/2 to 1912/13: *Selections* MS no. 559 (Bombay, 1919), no. 574 (Bombay 1920) and no. 528 (Bombay, 1915) Appendix B.

1914/15 P. C. Patil, *op.cit.* (1921). These figures are based on data from 32% of the cultivable area of the district.

Table 5.6 **Land Use in Ratnagiri District 1789-1873**
(Land cultivated in acres)

<u>Taluka</u>	<u>1789/1810</u>		<u>1854/5</u>		<u>% change</u>		<u>1871/3</u>	<u>%</u>
	A Rice	B Hill	C Rice	D Hill	A/C	B/D	E Rice	A/E
<u>Suvernadurg</u> (Khed Dapoli and Mandangad) 385 villages	9,564	32,155	14,206	110,924	48%	244%	NA	
<u>Anjanvel</u> (Chiplun and Guhagar) 219 villages	6,828	13,600	20,591	52,840	201%	288%	NA	
73 villages in Guhagar	1,219	NA	NA	NA			5,540	354%
69 villages in Chiplun	2,107	NA	NA	NA			12,772	506%
<u>Ratnagiri</u> (Ratnagiri and Sangameshwar) 362 villages	20,837	67,288	26,786	86,906	28%	29%	NA	
<u>Vijayadurg</u> (Deogad and Rajapur) 175 villages	9,060	13,522	9,460	20,070	4%	48%	NA	
77 villages in Lanje	4,742	NA	NA	NA			6,051	28%
<u>Malvan</u> (Malvan and Vengurla) 138 villages	10,559	10,023	10,571	9,801	0.1%	-0.9%	NA	
Whole District	56,848	136,788	81,614	280,541	44%	105%	NA	

Sources

BRP Range 376 Vol 39 of 1849 no. 5663 dated 13.12.1847 Statement F (no. 5671) enclosed with above: for Peshwa's assessment; MSA RD Vol. 16 of 1860 letter no 1416 of 1856 dated 31.12.1856 for data on 1854/5 (original data in bighas); MSA RD Vol. 43 of 1872 Comp. 332 letter no. 352 dated 16.12.1871 p. 64 para. 19: 73 villages in Guhagar; MSA RD Vol. 40 Comp. 405 letter no. 1 dated 2.11.1870 p. 279 para. on 69 villages in Chiplun; MSA RD Vol. 115 of 1875 Comp. 252, letter no. 45 dated 10.2.1872 p. 433 para. 27: on 77 villages in Lanje.

Table 6.1 **Movement of Prices Per Ser of Husked Rice, Ratnagiri District 1826-1915 (5 year moving averages)**

	Date	Price Index (Base year 1842=100)	Date	Price Index (Base year 1842=100)
April 1st	1826	122	1878	230
	1827	123	1879	220
	1828	104	1880	188
	1829	93	1881	173
	1831	85	1882	168
	1832	89	1883	162
	1833	94	1884	167
	1834	100	1885	170
	1835	107	1886	176
	1836	108	1887	178
	1837	114	1888	181
	1838	118	1889	188
	1839	114	1890	197
	1840	111	1891	201
	1841	107	1892	202
	1842	100	1893	200
	1843	96	1894	200
	.....		1895	208
			1896	207
			1897	207
Whole year	1855	115	1899	217
	1856	130	1900	206
	1857	146	1901	206
	1858	157	1902	207
	1859	161	1903	203
	1860	168	1904	213
	1861	182	1905	225
	1862	194	1906	239
	1863	214		
	1864	247	1907	244
	1865	252	1908	258
	1866	258	1909	264
	1867	255	1910	270
	1868	241	1911	272
	1869	222	1912	283
	1870	136		
	1871	205		
	1872	197		
	1873	190		
	1874	186		
	1875	194		
	1876	220		
	1877	225		

Source Prices for 1824/46 from Pune Archive Revenue Commissioner Central Division Records Misc. Vol. 147, calculated as average of all markets listed. This source gives prices in rupees per khandi (volume measure) but prices for 1840/6 also given in sers (weight measure) per rupee). Prices for 1853-1879 from Gazetteer (1880) p. 163. Prices for 1880-1923 from 'Season and Crop Reports of the Bombay Presidency' and Annual Report on the Administration of the Bombay Presidency.

Table 6.2

'Statement Showing the Prices in Rupees per Kandy of each of the Principal edible grains of the Ratnagiri zillah on the 1st of April of Each Year from 1824-1845'

Bhat (Rice)**Names of talukas and Peths****Ratnagiri taluka**

	1924	1825	1826	1827	1828	1829	1830	1831	1832
Peth Sivapur	22	32	26	23	20	16	13.8	13	16
Peth Narayan	18.2	29.1	20	20	16	11.6	11.8	12.4	13
Peth Makhajan	18.3	29.1	20	20	16	11.6	12	11.12	12.4
Peth Devrukh	-	26.10	21.4	22.12	17.12	11.6	13	13.4	13.4
Peth Lanje	22	30	22	24	20	14	15	12	14
Peth Sadavli	22.4	32	22	23	20	15	15	12	14
Peth Ibrahampur	20	-	24	23	20	16	14.8	12	14
Peth Jaigad	-	-	22.12	22.12	18	15.4	14.8	14.8	16
	1833	1834	1835	1836	1837	1839	1840	1841	1842
Peth Sivapur	19	20	17	20.4	20	25.8	21.8	18.8	14.8
Peth Narayan	18	16	14.8	18	20	21.8	20	16	14.8
Peth Makhajan	17.4	17.12	14.4	18	18	23	20	16	14
Peth Devrukh	17.2	18	16	17.8	20	22.12	21.4	16	15.4
Peth Lanje	19	19	16	17	19	21.8	19	16	16
Peth Satavli	19	19	18	17	21	21.8	21	17	16
Peth Ibrahampur	19	19	16	17	19	21.8	19	16	16
Peth Jaigad	20	20	18	20	20	27	21.4	18.8	-
	1843	1844	1845						
Peth Sivapur	17	17.8	18.4						
Peth Narayan	15	16	16						
Peth Makhajan	15	16	15						
Peth Devrukh	16	16	16						
Peth Lanje	15	16	17						
Peth Sadavli	15	16.9	17						
Peth Ibrahampur	14.8	16.8	17						
Peth Jaigad	16	18	18						

Source

Pune Archives, Revenue Commissioner Central Division Records Miscellaneous Vol. 147

Note Peth Sivapur was in Ratnagiri town; Peth Narayan was at Sangameshwar; Peth Ibrahampur was at Sakharpe.

Table 6.3 **Allocation of Gross Cropped Area of each taluka**
in Ratnagiri 1914/15

Taluka (with % of Khoti villages)	Rice	Garden crops	Other cash crops (sugar and hemp)	Dry grains and pulses
Vengurla	42.8	22.51	0.35	30.83
Malvan (20%)	43.50	8.98	1.31	46.21
Deogad	38.46	4.03	7.67	49.84
Rajapur (66%)	43.90	3.25	3.62	49.23
Ratnagiri (48%)	37.61	4.93	0.43	57.03
Sangameshwar (82%)	31.54	0.94	0.08	67.44
Chiplun (90%)	33.58	5.56	0.12	60.74
Khed (99%)	33.07	0.46	0.09	66.47
Dapoli	30.58	4.41	0.43	64.51

Sources

P. C. Patil, op. cit. (1921)

Table 6.4 **Population and Cultivation in tariff Sytowde and tariff Kuriat Nevre, Ratnagiri taluka 1829-1869**

	<u>Sytowde</u>	<u>Kuriat Nevre</u>	
	7 Dharekari Villages	11 Khoti Villages	8 Dharekari Villages
Average population per village in 1829	998	104	668
Average population per village in 1869	1,439	304	1,263
Acres of rice land per head 1829	0.13	0.2	0.27
Acres of rice land per head 1869	0.14	0.12	0.18
Acres of garden land per head 1869	0.034	0.016	0.116
Acres of cultivated hill land per head 1829	0.33	0.94	0.20
Acres of cultivated hill land per head 1869	0.21	0.51	0.17
Total acres per head 1869	0.35	0.63	0.35
% rice and garden to hill land 1869	45%	22%	54%

Footnote for Table 6.4

- a) For the method of calculating population and hill land, see Table 5.1 and 5.3.

Source

Dowell's Notes *passim*; Selections NS No. 574 (Bombay, 1920) Appendix Q and Q'; Census of the Bombay Presidency 1872 Vol. II Table I; Census of India 1911 Vol. VII Part II Table 1.

Table 6.5 **Relationship between Rice, Garden and Hill Cultivation in
Five Khoti and Dharekari Villages in Ratnagiri and
Sangameshwar Talukas**

	2 Khoti			3 Dharekari		
Holdings	Muchari	Dingni		Pirdavne	Shirgaon	Kotavde
	R: G: H:	R: G: H:		R: G: H:	R: G: H:	R: G: H:
Acres						
Under 1	36:0:64	17:0:83		97:0:3	86:2:12	63:6:31
1-4	12:0:88	14:0:86		55:0:45	29:26:45	58:5:47
5-9	15:0:85	10:0:90		14:0:86	35:2:63	33:2:64
10-19	7:0:93	6:0:94		13:0:86	15:1:84	8:1:91
20-29	10:0:90	4:0:96		10:1:89	16:2:82	18:1:81
30-50	7:0:93	3:0.5:96		10:0:90	18:1:81	17:1:82
Over 50		6:0:94		11:0:89	15:0.4:85	6:0.2:82

Source

Settlement records, botkut for Shirgaon (1887) and Kotavde (1885), Ratnagiri taluka and for Muchari (1895), Dingni (1894) and Pirdavne (1894), Sangameshwar taluka.

Table 6.6A Distribution of *dharekari* holdings by caste*
in Shirgaon village, taraf Kuriat Nivre, Ratnagiri taluka 1897.

<u>Rice land</u>			
<u>Holdings:</u>	<u>5 acres and over</u>	<u>2-4 acres</u>	<u>1 acre and under</u>
	18 Brahman	23 Brahman	22 Brahman
		4 Bhandari	20 Bhandari
		2 Maratha	20 Kunbi
		1 Sonar	6 Vani
		1 Vani	6 Gurav
		1 Muslim	5 Muslim
			2 Maratha
			2 Mahar
			1 Sonar
			1 Chambhar
			1 Teli

<u>Hill Land</u>					
<u>Holdings:</u>	<u>15 acres and over</u>	<u>10-14 acres</u>	<u>5-9 acres</u>	<u>2-4 acres</u>	<u>1 acre and under</u>
	24 Brahman	13 Brahman	9 Brahman	9 Brahman	24 Kunbi
	4 Gurav	3 Gurav	2 Kunbi	1 Bhandari	22 Bhandari
	1 Bhandari		1 Maratha	1 Sonar	6 Brahman
	1 Maratha		1 Vani	1 Vani	6 Muslim
	1 Kunbi		1 Bhandari	1 Kunbi	1 Sonar
			1 Mahar		1 Teli

**Table 6.6B Average size of holdings by caste in 2 villages in
tarf Sangameshwar, Sangameshwar taluka (in acres and guntas)**

Muchari (1895)
(*khoti* tenants' holdings)

Brahman	Rice:	1a 28g
	Hill:	7a 16g
		9a 4g
Maratha	Rice:	25g
	Hill:	9a 32g
		10a 17g
Kunbi	Rice:	14g
	Hill:	6a 32g
		7a 6g
Sonar	Rice:	2a 10g
	Hill:	3a 27g
		5a 37g
Sutar	Rice:	35g
	Hill:	4a 24g
		5a 19g
Mhavi	Rice:	1a
	Hill:	4a 8g
		5a 8g
Mahar	Rice:	17g
	Hill:	7a 1g
		7a 18g
Gosavi	Rice:	17g
	Hill:	4a 3g
		4a 20g
Muslim	Rice:	35g
	Hill:	2a 20g
		3a 15g
Gurav	Rice:	10g
	Hill:	3a 3g
		3a 13g
Kumbhar	Rice:	-
	Hill:	3a 22g
		3a 22g
Gavli	Rice:	-
	Hill:	1a 6g
		1a 6g

Pirdavne (1894)
(*dharekari* holdings)

Brahman	Rice:	4a 1g
	Hill:	28a 8g
		32a 9g
Maratha	Rice:	2a 13g
	Hill:	4a 32g
		7a 5g
Kunbi	Rice:	1a 18g
	Hill:	5a 34g
		7a 12g
Gurav	Rice:	15g
	Hill:	2a 22g
		2a 37g
Chambhar	Rice:	-
	Hill:	33g
		33g
Mahar	Rice:	8g
	Hill:	-
		8g

Footnotes

a. The occupants and owners of holdings are not identified in the settlement records by caste, but by name. It is usually possible to identify a person's caste in the nineteenth century by their name, but there may sometimes be errors, particularly in distinguishing *Maratha* and *Kunbi*.

Source

Settlement records, *botkut* for Shirgaon, Muchari and Pirdavne.

Table 6.7

**Distribution of Land Between Families in Pirdavne Village.
tarf Sangameshwar, Sangameshwar taluka in 1789 and 1894**

Family	1789 Holders	1789 Total Acres ^b		1789 Average Per Holder		1789 % ^a	1894 Holders	1894 Total Acres		1894 Average Per Holder		1894 %
<u>Mulye</u>	6						17					
Rice		28a	20g	4a	30g	44%		60a	31g	3a	22g	45%
Hill		277a	16g	46a	24g	54%		448a	-	26a	16g	48%
<u>Bagwaji</u>	9						10					
Rice		18a	12g	2a	-	28%		42a	25g	4a	10g	31%
Hill		164a	32g	18a	12g	32%		272a	-	25a	28g	29%
<u>Kale</u>	0						1					
Rice								10a	-	10a	-	
6%												
Hill								69a	32g	69a	32g	7%
<u>Malekar</u>	4						3					
Rice		3a	23g	-	35g	4%		7a	-	2a	13g	5%
Hill		32a	32g	4a	8g	6%		56a	12g	17a	44g	6%
<u>Niweskar</u>	2						4					
Rice		2a	16g	1a	8g	3%		8a	12g	2a	3g	6%
Hill		1a	36g	1a	-	0.3%		37a	8g	9a	12g	4%
<u>Sabekar</u>	3						3					
Rice		5a	12g	1a	13g	8%		2a	6g	-	21g	1.5%
Hill		26a	32g	6a	24g	5%		17a	36g	4a	16g	1.1%
<u>Juwekar</u>	0						4					
Rice								2a	33g	-	35g	2%
Hill								2a	-	-	20g	0.2%
<u>Gholkar</u>	1						1					
Rice		1a	-	1a	-	1%		1a	33g	1a	33g	0.7%
Hill		-	24g	-	24g	0.15%		13a	4g	13a	4g	1%
<u>Mahar</u>	3						9					
Rice		2a	16g	-	32g	3%		1a	37g	-	8g	1%
Hill												
<u>Gurav</u>	1						4					
Rice			8g	-	8g	0.3%		-	18g	-	4g	0.3%
Hill			4g	-	4g	0.03%		-	32g	-	4g	0.1%
<u>Date</u>	1						0					
Rice		1a	24g	1a	24g	1%						
Hill												
<u>Teli</u>	1						0					
Rice		-	10g	-	10g	0.3%						
Hill												
<u>Chambhar</u>	0						1					
Rice												
Hill								1a	12g	-	32g	0.1%

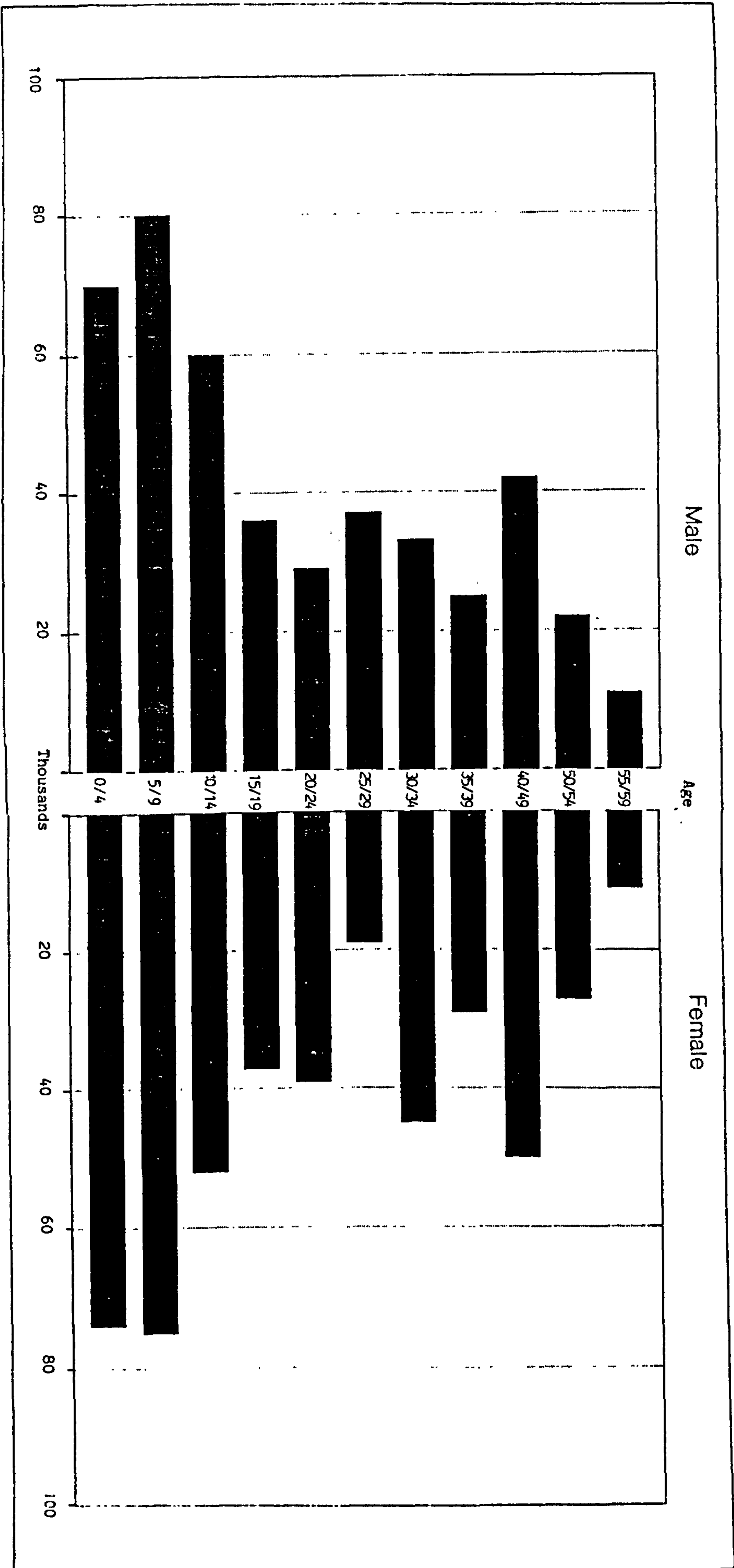
Footnotes for Table 6.8

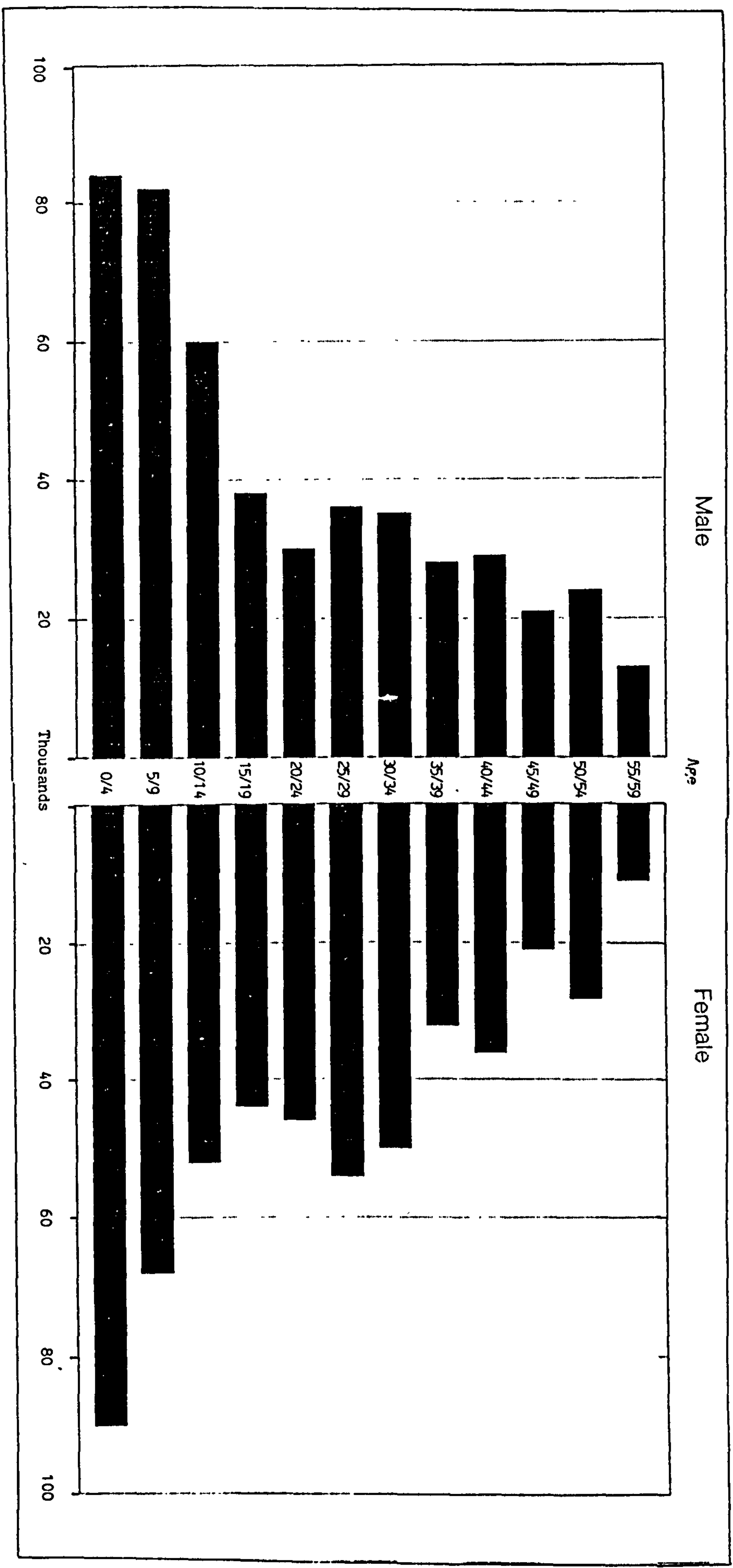
a) % = holding of rice/hill land as a % of total rice/hill land in the village. b) a = acres; g = guntas.

Source Settlement records, botkut for Pirdavne (1894), and Peshwa Daftar, Konkan Jamao, Rumat 497, pahani jirayet for Pirdavne

Figure : 1 Structure of Population
in Ratnagiri District, 1881-1901

Figure : 1a 1881





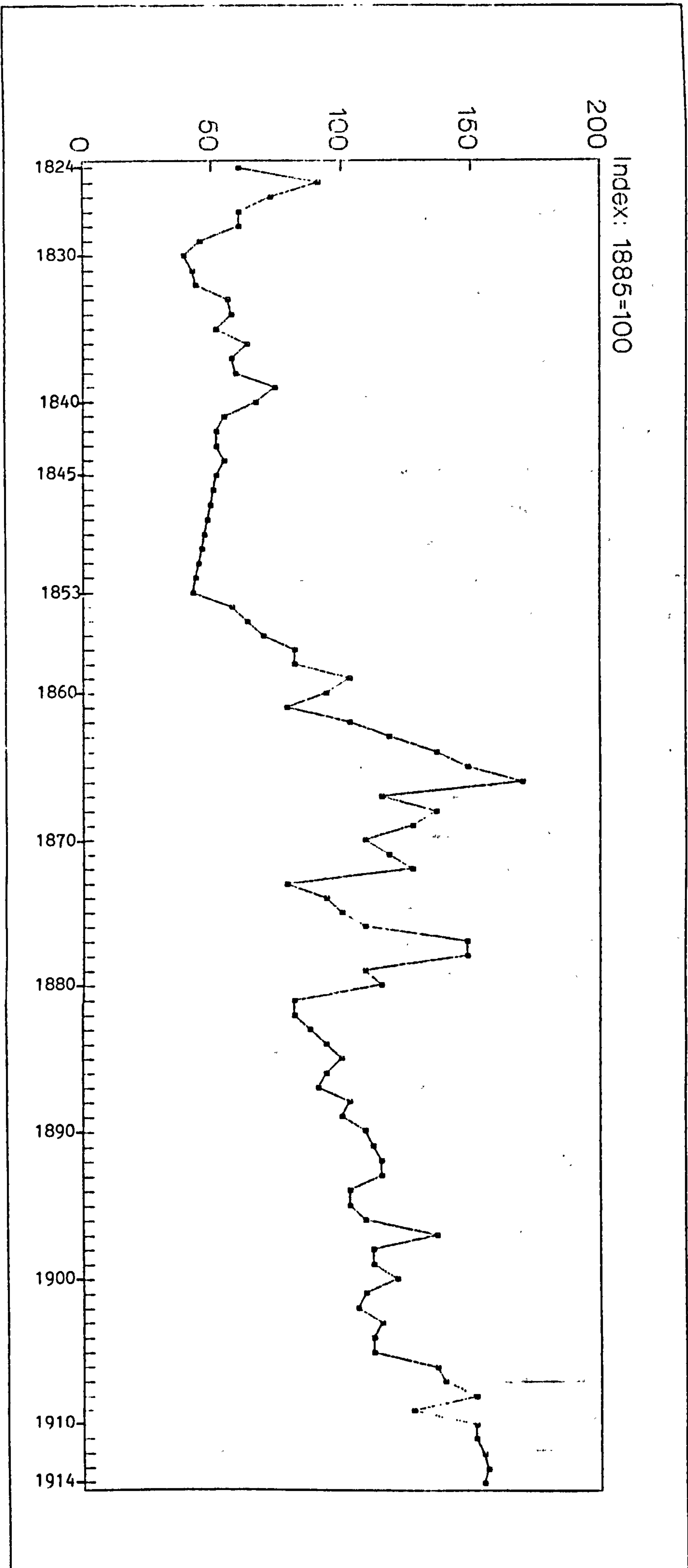


Fig 2 Wholesale Price of Rice (Husked, Uncleaned/2nd Sort)
 (Rupees per maund, current prices) Ratnagiri District, 1824-1914

GLOSSARY AND ABBREVIATIONS

NOTE ON TRANSLITERATION. Because most of the sources used in this study date from the nineteenth and early twentieth century, I have decided to use the system of transliteration operating in British India, in spite of its inadequacies, in order to avoid confusion for any reader consulting the British sources. In the early nineteenth century the British authorities in Bombay Presidency used a rather different system of transliteration from that used from the later nineteenth century, and I have decided to use the transliterations of Marathi words most commonly employed in the late nineteenth and the first half of the twentieth century, since this is closer to the modern system.

abhavni - crop appraisal by the *khot*.

akar pharasa - record of the assessment of *pharasa* (*farasa*), a tax in kind paid to the *Maratha* forts.

ardheli - crop share tenant paying a half share of the crop.

badhekari - newcomer to a village; temporary cultivator in a village; in *khoti* villages, families who came to the village after the *khot*.

badli - mill worker hired by the day as a casual labourer.

bagayet - irrigated garden land.

banian - merchant and money-lender.

batai - annual crop assessments by government.

bhatle - level hill land.

Bhandari - caste whose occupations included toddy tapper, boatman and farmer.

Bhusari - caste of petty traders.

bigha - a measure of land, 0.8 of an acre by the later nineteenth century, though in the earlier nineteenth century measurements varied somewhat between districts.

botkut (*botkhat*) - village land register of the Survey Settlement,

summarising each holding and its assessment.

- BGP - Bombay General Proceedings.
- BJP - Bombay Judicial Proceedings.
- BRP - Bombay Revenue Proceedings.
- budki* - an irrigation device to scoop water from a river and pour it onto the neighbouring field.
- bullottee (balute)* - tax raised on village servants (*balutedars*) by government.
- chahur* - land measure = 120 *bighas*.
- chakar* - slave (male)
- chalu wahiwat* - current management/control of property.
- Chambhar* - leatherworker caste.
- chawls* - housing for factory workers in Bombay.
- chawlya (chavli)* - a bean, (*dolichos catjanga sesquipedalia*)
- Chitpavan Brahman* - sub-caste of *Brahmans*, originating in the Konkan.
- Dhangar* - caste of herdsmen.
- desai* - hereditary taluka official under the Maratha government.
- Desasth Brahman* - *Brahman* sub-caste originating from the Deccan
- deshkulkarni* - hereditary district and *taluka* official under the Maratha government, dealing with revenue and accounting and enjoying *inams* and *haks*.
- deshmukh* - as for *deshkulkarni*.
- deshpande* - as for *deshkulkarni*.
- dhara* - a holding belonging to a *dharekari*.
- dharekari* - a village where each landholder pays revenue to the government on his own holding, through the agency of the village head; a landholding peasant with rights to mortgage, inherit and possibly sell their property
- Dhawad (Dhavad)* - iron worker caste.
- dhoti* - loin cloth.
- Diwali* - Festival of Lights, in October.
- Dowell's Notes* - Selections from the Records of Bombay Government MS no 197 *Captain Dowell's Notes on the Survey of the Old Ratnagiri Taluka (Bombay 1912)*.
- ferakht* - rate at which part of the grain revenue was compulsorily commuted

- Ganpatti* - the Elephant headed god, very popular in *Maharashtra*.
- gaonkar* - village head in a *dharekari* village
- gavik* (*gawik*) - land unoccupied by permanent cultivators
- Gavli* - caste of herdsmen or cowherds.
- gayali* - land abandoned temporarily or permanently by a permanent cultivator
- Gazetteer* (1880) - *Gazetteer of the Bombay Presidency Vol.X Ratnagiri and Sawantwadi* (Bombay, 1880)
- ghee* - clarified butter.
- Ghera* - the area round a fort.
- Ghisadi* - caste of blacksmiths.
- Gosavi* - a religious beggar.
- gramdev* - the village god.
- gram kharch* - tax to cover the expenses of village administration.
- gudast* - last time, last year.
- gulam* - a male slave
- gunta* - measure of area: 40 in an acre.
- Gurav* - caste of temple servants.
- Hajam* - barber.
- harik* - a hill grain (*papsalum scrobiculatum*) known in the Deccan as *kodra*
- havildar* - a garrison commander.
- huk* (*hak*) - the dues of village and district officials (*hakdar*), mainly payments in kind.
- inam* - grant of revenue free land.
- IOL* - India Office Library and Records.
- istawa* (*istava*) - tax concession by the *Naratha* government to individuals opening up cultivation or improving land, granting a number of revenue free years, followed by a gradually increasing assessment up to the full amount.
- itlakh* - payment in kind by the village for village servants.
- jangal kharda* - village field book of the British survey settlement.
- Jangam Lingayat* - a priest.
- jirayet* - unirrigated land.
- kamal* - *Naratha* revenue survey of the Konkan in the 1780s, based on the measurement and classification of land actually

under cultivation in each holding, in order to arrive at a total payment for the village as a whole.

- kabulayet* - annual agreement signed between the *khot* and the British government, in which the *khots* agreed to pay the government revenue demand on their village in return for confirmation of their right to manage the village.
- karsai* - a tax in kind levied on villages by the *Naratha* government for the repair and maintenance of the hill forts. Also a tax in kind of items of food, domestic utensils etc, levied on the cultivators by the *khot*
- kasba* - market town or village.
- khajun* - salt marsh land usually at the mouth of a creek.
- khandi* (candy) - measure of volume, equal to 20 maunds (in volume).
- kharif* - rice land; crops grown in the monsoon season.
- khasgi* - *khot's* personal holding, which he retained even if he relinquished the *khotiship*.
- khot* - hereditary village *zamindar* in Ratnagiri, who contracted with government to pay the village revenue;
watandar khot - *khot* with a document granting the *khotiship* from a recognised *Naratha* or British authority.
- khudkul* - rocky land.
- kichedi* village - a village which was part *khoti* and part *dharekari*.
- killedar* - officer in charge of a fort
- Koli* - caste of fishermen.
- Koshti* - caste of weavers.
- kowl* - see '*istawa*'.
- kul* - a *dharekari* holder.
- kulargi* - as *dharekari*.
- kulith* - a pulse known as horse gram (*dolichos bifloris*).
- kulkarni* - village accountant
- Kumbhar* - potter caste
- Kunbi* - one of the main agricultural castes in Western India, not clearly differentiated from *Narathas*, but lower in status
- kunbini* - female slave.
- kuriat* - terraced hill land used to cultivate rice in the monsoon,

- often used in the dry season for irrigated crops.
- Lingayat* - devotee of the god Shiva.
- Lohar* - ironworker caste
- mafi istawa kowl* - see 'istawa'
- mahal* - subdivision of a district, otherwise known as a *taluka*.
- Nahar* - untouchable scavenger caste
- nakta* - fixed rent agreement.
- mamlatdar* - under the *Peshwas*, the chief magistrate and administrative head of the district; under British rule, the *mamlatdar* was the head of the Indian administration in the district, working for the British Collector, who represented the British government.
- map wartala* - use of bigger measures for accepting grain payments from cultivators than was used for paying grain to government.
- Maratha* - main agricultural/warrior caste in Maharashtra; not clearly differentiated from the *Kunbi* caste, but higher status.
- maund (man)* - measure of volume (20 *maunds* in a *khandi*) and also of weight (40 *sers* in a *maund*).
- mirasdar* - used in the Deccan to describe a landholding peasant with rights to inherit and mortgage his holding.
- mohatarfa* - a tax on shopkeepers, imposed by the *Maratha* government.
- MSA RD - Maharashtra State Archives, Bombay Revenue Department Files
- mug* - a pulse, known as green gram (*phaseolus aureus*).
- munsif* - district judge in the civil court.
- musahira (mushara)* - small payment to the village headman in a *dharekari* village for managing village lands and collecting the revenue.
- nagli* - finger millet (*eleusine coracana*) known in the Deccan as *ragi* or *nachni*
- naikin* - female jobber
- nazar pahani* - estimate of the harvest by an inspection of the standing crop.
- Nhavi* - barber caste

- nulla (nala)* - watercourse or ravine.
- padan* - sub-division of village land for fallowing rotation.
- pahani bagayet* - *Maratha* village survey document, giving details of assessment of tree cultivation.
- pahani jirayet* - *Maratha* village survey document, giving details of unirrigated land and its assessment.
- pahani kharda* - *Maratha* village survey record, giving full details of each man's holdings
- pand* - measure of area - 20 *pands* in a *bigha*.
- Pant Pritinidhi* - one of the chief officers in the *Peshwa's* government, hereditary in a leading *Maratha* family.
- Parit* - washerman caste.
- pat* - stone channel leading water from a tank or stream to the fields
- patil* - village headman
- patti* - a cess imposed above the basic revenue demand.
- patti badhe* - cash payment exacted by *khots* from the lower castes in commutation for their obligation to carry revenue grain to the government depot.
- payli* - measure of volume - 16 (sometimes 12) *paylis* in a maund; 4 *sers* in a *payli* (3% when the *Maratha* government was receiving revenue grain).
- Peshwa* - the title of the ruler of the *Maratha* state in the eighteenth century, based in Poona. Originally the chief minister of the Raja, by the mid eighteenth century the Rajas had become mere figureheads, and the *Peshwas*, a *Chitpavan Brahman* family originating in Ratnagiri district, controlled the state.
- pharmasa (farmasa)* - tax in kind levied on villages by the *Maratha* government in order to provision the forts.
- pot number* - a sub-division of a survey number.
- punj* - a payment to some village servants.
- pursumpurde* - tax on the gardens round cultivators' houses, imposed by the *khot*.
- rab* - manure, consisting of leaves and branches burnt on the seed beds before sowing.

- rabi* - i. wet land, usually on the banks of rivers, which can be cultivated outside the monsoon season without using artificial irrigation.
 ii. crops sown in August/September, harvested January/March
- rakhmi* - land cultivated within fixed boundaries (usually rice land).
- ryot* - peasant
- ryotwari* tenure - tenure in which the village landholders pay their land tax direct to government without intermediaries.
- sadr adalat* - the district court.
- sadr amin* - district judge.
- Salvi (Sali)* - caste of weavers.
- sanad* - government grant or decree.
- sardesai* - Maratha hereditary district official, receiving *haks* and *inam*.
- sarnakadam* - as *sardesai*.
- sawa* - small millet (*pannicum miliare*).
- Selections* - Selections from the Records of the Bombay Government
- ser* - weight measure (40 *ser*s to a *maund*), and volume measure (usually 4 *ser*s to a *payli*, 64 to a *maund*).
- shetkari* - debt bonded agricultural labourer.
- Shimpi* - tailor caste.
- sirdeshkulkarni* - as *sardesai*.
- Sonar* - goldsmith caste.
- sud* - (*pakka sud* and *kaccha sud*) - village survey documents of the British survey settlement, detailing each holding, with maps.
- Sutar* - carpenter caste.
- tag* - hemp (*crotonia juncea*).
- talathi* - village accountant
- taluka* - an administrative subdivision of a district
- talukdar* - form of *zamindari* tenure.
- tanka* - seventeenth century lump sum village assessment.
- tarf* - an administrative subdivision of a *taluka*
- Teli* - oil-presser caste
- teriz* - eighteenth century revenue document listing the holdings

- of the main cultivators in the village
- therao* - appendix to the settlement *botkut*, giving details of rents paid by occupancy tenants.
- tikedar* - inoculator.
- til* - sesame seed (*sesamum indicum*), also known as '*til gode*'.
- tirdheli* - crop share tenants paying one third of the crop
- tuccavi* (*tagavi*) - loan by government to peasants to encourage cultivation
- tur* - pigeon pea (*cajanus indicus*).
- tussur* - a part of the grain revenue compulsorily commuted to cash at a set rate.
- udid* - a pulse, known as black gram (*phaseolus mungo*).
- vakil* - barrister, lawyer.
- Vani* - merchant caste.
- vari* - proso millet (*pannicum miliare*).
- Vedic Brahman* - true *Brahman* caste.
- veth* - forced labour by tenants to landlord, usually the *khot*.
- wada* (*vada*) - hamlet.
- warkas* (*varkas*) - hill land growing 'dry crops' which do not need to be irrigated naturally or artificially.
- warn* (*varn*) - a type of pulse.
- watan* (*vatan*) - hereditary right or property.
- watandar* (*vatandar*) - hereditary proprietor; *watandar kardes* - cultivators in *khoti* villages with secure tenure
- wazan* (*vazan*) - crops measured in weight for assessment purposes; '*wazan ser*', a *ser* in weight, was used in the Maratha period for measuring certain crops for revenue and other purposes e.g. spices, sugar.
- zamindar* - hereditary landowner (usually) with also a hereditary, alienable right to the revenue from lands held in *zamindari*; normally the *zamindar* has some land revenue free and the right to extra taxes and services from the peasants, and in return has the duty to collect government revenue from his *zamindari* if required.

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